JUL 2 1928

PAPER TRADE JOURNAL

Vol. LXXXVI, No. 26 JUNE 28, 1928 United States, Per Annum, $4.00 Canada and Foreign Countries in Postal Union, $6.00

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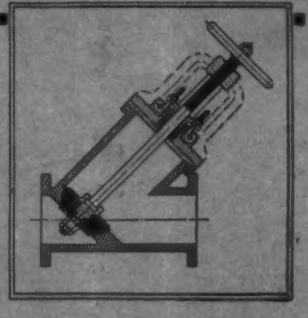

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Appleton, Wisconsin

Entered as second class matter August 13, 1925, at the Post Office at East Stroudsburg, Pa., under Act of Congress of March 3, 1879. ESTABLISHED 1872 FIFTY-SIXTH YEAR Published every Thursday by the Lockwood Trade Journal Co., at 34 N. Crystal St., E. Stroudsburg, Pa. EXECUTIVE AND EDITORIAL OFFICES: 10 East 39th STREET, NEW YORK CITY. CHICAGO, 123 West Madison Street, Chicago, Ill.

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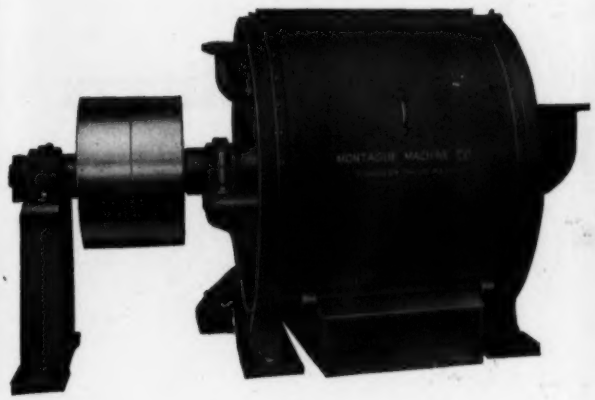
Patent applied for.



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PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SIXTH YEAR

Published Every Thursday by the

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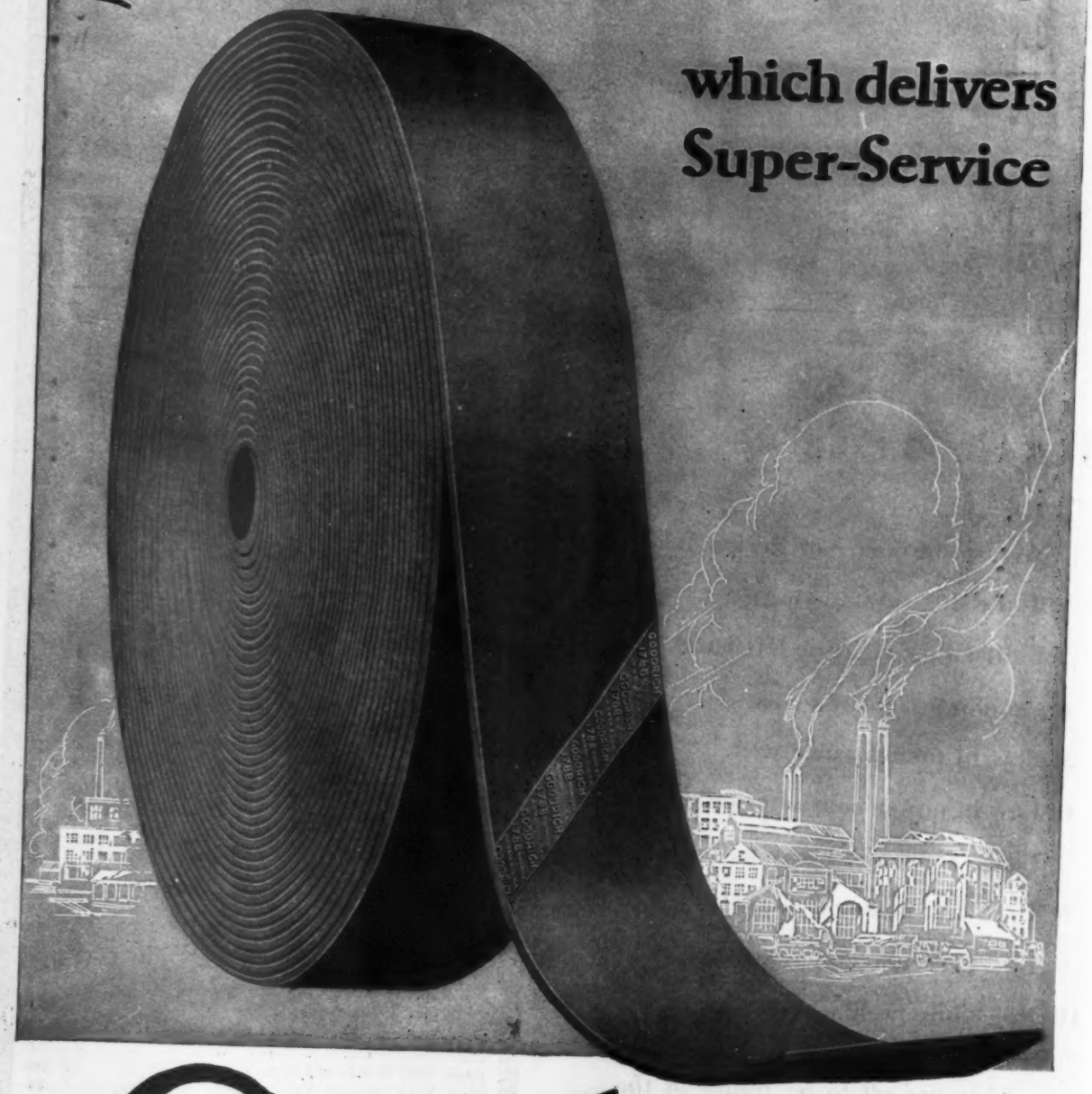
The Transmission Belt

which delivers Super-Service



Goodrich

"1788 Highflex" Belt

THE B. F. GOODRICH RUBBER COMPANY

Established 1870

Akron, Ohio

ESTABLISHED IN 1872

PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. LXXXVI, No. 26 Thursday, June 28, 1928

Cost and Technical Meet at Kalamazoo, Mich.

Meeting Sponsored by the Michigan Division of the Cost Association and the Paper Technologists Club Attracts Many Representative Cost and Technical Men From the Paper Mills in the Five Great Lake States—R. G. MacDonald, Secretary of Technical Association, and T. J. Burke, Secretary Cost Association, Speak

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., June 23, 1928.—An interstate meeting held at the Park-American Friday and Saturday, closed this evening with a dinner program and address by R. A. Hayward, manager of the Kalamazoo Vegetable Parchment Company. He spoke on "Opportunities in Cost and Technical Work." Ivar Lundbeck, president of the Paper Technologists' Club, presided.

The meetings have been for cost and technical men from mills in the five Great Lake States and were sponsored and arranged by the Cost Association of the Paper Industry, Michigan division, and the Paper Technologists Club, two very active and aggressive Kalamazoo Valley organizations. So successful have these gatherings been that Harry C. Bradford, secretary of the Rex Paper Company and general chairman of the committee on arrangements, has said they will very likely be repeated annually in the years to come.

An Interesting Program

The general program provided for two dinner sessions, a luncheon, opening conference and sectional meetings. T. J. Burke, secretary of the Cost Association of the Paper Industry and editor of that department for the PAPER TRADE JOURNAL, was present and addressed the Saturday luncheon meeting on "Men, Money, Machinery and Materials and Their Relation to Costs." Another guest was R. G. MacDonald, editor of the Technical Section of the PAPER TRADE JOURNAL, who gave a paper at Friday's technical section meeting on "Interesting Technical Problems."

Dr. Allan Hoben, president of Kalamazoo College, was the speaker at the Friday evening dinner. Elbert G. Milham, president of the Cost Association of Kalamazoo Valley, presided and A. C. Dreshfield, of the Western Paper Makers Chemical, acted as toastmaster.

Joint Session Friday

At the joint session Friday noon, Elbert G. Milham welcomed the visitors to Kalamazoo and F. C. Stamm spoke on "Power Costs." That afternoon there were sectional meetings. The cost men listened to papers on "Standard Costs and Budget Control," by H. T. McAnly, of Ernst and Ernst and "What Percentage Should Be Added for Profit," by G. K. Ferguson. To the technical section, Allen Abrams read a paper on "Cutting the Diamond." This was followed by R. G. MacDonald's paper and a discussion on "Testing Pulp for Strength."

Saturday afternoon's sectional programs were:

Cost: "Time Study," H. S. Davy; "Bonus Systems," J. C. Wood; "Cost Data for Executives," A. W. Lewis.

Technical: "The Use and Detection of Formaldehyde in Paper," Dr. Theodore Bentzen; "A Mill Control System," M. A. Krimmel; "Jordans vs. Beaters," G. S. Brazeau.

Saturday morning the visitors either played golf over the Arcadia course or visited the new science hall at Kalamazoo College or one or more of the Kalamazoo Valley mills.

Sell Saniwax Plant at Memphis

George L. Irvine, president of the Saniwax Paper Company, has just returned from Memphis, Tenn., and Dallas, Texas, and reports the sale of the Saniwax Memphis plant to Dixie Wax Paper Company, of Dallas.

The Saniwax plant at Memphis was established two years ago and enjoyed a large trade in the south. The Dixie Wax Paper Company was the pioneer waxed paper concern in the territory and made Saniwax people such a favorable offer for their southern plant that they decided to sell.

John H. Peatling, who has been in charge of the Memphis plant will return to Kalamazoo and again become a part of the local organization. The Kalamazoo plant will be operated on a larger scale than in the past and much of the southern trade will be supplied from here.

Frank Mosteller Made Gen. Mgr.

At the regularly monthly meeting of the directors of the Allied Paper Mills, Frank Mosteller was elected vice president and general manager of all plants. He takes office immediately.

This will relieve Alex. G. Gilman, president, of many details and enable him to give his full time to active charge of all sales matters, connected with the King, Monarch and Bardeen divisions and the company's New York warehouses, from which salesmen cover the eastern territory.

Michigan United Paper Co. Incorporates

Michigan United Paper Company, Muskegon, has been incorporated with a capital of $60,000. This concern is to manufacture asphalted and waxing paper and similar lines and is brought to Muskegon from East Braintree, Mass., by the Greater Muskegon Industrial organization. The incorporators are Frank E. Donovan, East Braintree, and C. N. Sessions and Wallace Foote, Muskegon. A factory has been leased.

General News of the Industry

The Northern Paper Mills, Green Bay, Wis., and Ontonagon, Mich., has decreased its capital from 50,000 shares no par common and $800,000 preferred to 66,250 no par common and $130 preferred.

(*Continued on page 40*)

Demand for Paper Seasonal In Philadelphia

Manufacturers Bidding For Orders Needed To Maintain Operations During Summer Months Experience Keen Competition—Fine Paper Industry In Sound Position Despite Growing Dulness in Printing Industries — Coarse Paper Prices Easier

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., June 25, 1928.—With mid June days, the Quaker City trade experienced a typical seasonal drifting of business with tendency towards softening of values. There has been keen competition among the mills bidding for orders that will be needed to maintain operations during the quieter summer days. As this competition extends there has been considerable inroads in the prices of some grades of papers. While these price concessions are confined to the coarser grades at this time, there is expectation of further cutting among other lines that are seasonally inactive.

Despite growing dullness in the fine paper market as the summer time slump in printing industries becomes effective in reduced orders now obtainable, there has been a steady price movement that indicates a well regulated mill schedule of operation and control of production. While some of the dealers are concerned with the prospects of extension of price slashing to the fine paper lines, others do not believe such a move is imminent and are looking for a steady market throughout the hot weather months. It is to be expected that mid year clearances of mill stocks will bring about some offerings under the market but they are for job lots and slow moving goods that have accumulated and are usually offered in the semi-annual clean up.

As the hot weather days approach the coarse paper market is maintained fairly well in the distribution of seasonal specialties. Tissues are in fair demand. Food wrappers are increasing in volume of shipments. There is a livelier business for wax paper and glassines used throughout the warm weather. Paper towels, drinking cups, soda fountain accessories, outing goods and like summer commodities now are holding to a normal seasonal activity that offsets the duller trend in the standard grades of paper wares. There is keen competitive bidding for business but while orders are eagerly sought, prices are kept at profitable levels.

While the summer time slump in industry brings about a quieter demand for converted products, the paper board market is unsteady with decidedly keen competitive bidding for orders to maintain operations throughout the hot weather period. Mills are making concessions where tonnage orders are available but the small lot business continues to be held within the price ranges of the first six months of the year, with chip board at $45 and news boards quoted at $47.50. The building board market has been subjected to slight price concessions. A few of the paper board manufacturers featuring exclusive building grades are holding firmly, with operation held to normal seasonal requirements. Strawboards are steady.

As the duller trend in the paper market slows up mill purchases of paper stock the local wholesalers are marking time. There is very little demand for the cheaper grades but the orders for book and writing paper stocks continue to hold at the top prices to which they recently were marked. There has been no recessions in quotations and very little stocks are to be found on hand in warehouses.

Paper Trade Golf Match

Philadelphia paper dealers and allied associates in the printing, publishing and supply trades, will join in the 12th Annual Golf Dinner Match to be held at the Merion Golf Club, Tuesday, June 28. Team playing in the morning schedule will determine the luncheon host, the loser to extend the hospitality of the dining table. There will be three awards in the Kickers Handicap to be played with the matin session. In the afternoon the Philadelphia Paper Trade Association Cup will be awarded to the low net scorer while there will be three other awards for low net scores in 1st, 2nd and 3rd prizes. Representing the paper trade on the committee are A. B. Sherrill, of Reigel and Company, and Irwin Megargee, of Curtis & Bros., Inc.

New Schmidt & Ault Line

Philadelphia wrapping paper dealers have been offered a new type of paper which has recently been added to the lines manufactured by the Schmidt and Ault Company, of York, Pa. This new type of paper is marketed as the Shoksorb, suggestive of its shock absorbing qualities and is an excellent substitute for corrugated products. Its basic material is readily recognized but it is finished in a manner that makes it unusual and unique and especially adapted for the purpose for which it is designed. This new shock absorbing paper comes in both sheets and rolls and at reasonable prices. The Shoksorb papers are being introduced to a selected list of jobbers in the Quaker City industry.

Globe Sprinklers Save Paper

Following the fire which occurred a few days ago in the building occupied by the Hooper Paper and Twine Company and owned by Sylvester S. Garrett, at 270 South American street, a survey of damages done to the structure and stocks on hand discloses the fact that little loss was sustained owing to the efficiency of the sprinkler system with which the building is equipped. The sprinklers were recently installed in the building by the Globe Automatic Sprinkler Company, manufacturers of fire prevention equipment, 2045 Washington avenue, this city, which has equipped a large number of paper mills and warehouses with its systems. The efficient response of the Globe System in the Garrett Paper Building reduced losses to a minimum of a few hundred dollars for the two paper concerns occupying the structure, as well as the other allied industries of paper box, printing house and lamp shade manufacturing, which occupied floors on the premises. While Sylvester S. Garrett, coarse paper dealer, owns the structure, his business is located in a nearby building on South Third street, and no damage was done to his stocks. Employees of the Garrett company turned on the main valve of the sprinkler system and aided in fighting the fire which originated on the fifth floor, occupied by the lamp shade concern.

S. S. Garrett Extends Sales Staff

Julius Metzger, who was formerly associated with two of the prominent New York City paper distribution concerns, has joined the staff of the S. S. Garrett Company, 259 South 3rd street. He is assigned to cover specified firms with a special line of paper with which he is specially familiar through previous sales experience in the local trade while attached to a Gotham paper house. For many years he covered the local trade for this New York concern, featuring the grades of specialties he will now promote for the Garrett company among a broad list of customers and trade associates.

N. A. Considine Honored

A special tribute was paid to President Norbert A. Considine, of the Paper House of Pennsylvania, 30-32 North 6th street, at the annual sales convention of the Strathmore Paper Company held last week in Mittineague, Mass., mill center of the fine paper manufacturing concern. More than 100 representatives of the

Strathmore company assembled at the annual gathering to hear the plans for sales promotion and exploitation of the various papers manufactured by the company.

At the meeting of the executive board held in conjunction with the gathering a resolution was adopted in tribute to President Considine in the form of special greetings that were radioed to him aboard the *Resolute* on which he now is sailing across the seas for a summer sojourn in Europe. The greetings were extended on his recovery from a recent serious illness from pneumonia and were accompanied by bon voyage wishes and regrets that he was not personally represented at the Strathmore Sales Convention. Had his illness not prevented his participation in the convention he would have presided as chairman of the sales conferences as scheduled in the program.

Upon receipt of the radio greetings in mid ocean, President Considine responded by a message of appreciation of the thoughtfulness of his associates and also sent a radiogram to local headquarters assuring his constituents in the firm of his welfare and improved health. President H. A. Moses, of the Strathmore Company, sent the radio greetings on behalf of the conventionites and his company upon its unanimous adoption.

Other Philadelphians linked with the distribution of the Strathmore products who attended the convention were Leonard Peck, manager of the Paper House of Pennsylvania; President Leon Beck and Vice-president Andrew Simon, of the Charles Beck Paper Company; Leonard J. Raymond and Charles Bond, of the Raymond McNutt Company, and Richard Hartung, of the firm of A. Hartung, Inc.

Paper Trade Association Quarterly Session

With the quarterly meeting of the Philadelphia Paper Trade Association, the recently postponed sessions of the fine and wrapping paper divisions will be held. The quarterly session is scheduled for Friday, June 29, at the Philadelphia Chamber of Commerce Building, 12th and Walnut streets.

Charles W. Bond To Promote Paper Specialties

Charles W. Bond, who joined the Raymond McNutt Company last September, as special sales promotion representative for the firm, has been assigned to cover the larger printing concerns of the Quaker City with a special line of printers' papers. Until the announcement of his association with the Quaker City sales promotion work he was engaged in similar campaigning among the larger state printers. Mr. Bond joined the Raymond McNutt Company last Fall after several years' association with the Arnolds Roberts Company, of Boston, Mass.

Plans For Direct Mail Advertising Convention

With the June meeting of the Poor Richard Club held last week, the preliminary plans for the coming international convention and exposition of the Direct Mail Advertising Association were announced. The Direct Mail Advertising Association, with an international membership, will meet in its Eleventh Annual Convention, October 17, 18 and 19. Headquarters have been opened for the convention at the Benjamin Franklin Hotel, where Charles W. Collier, convention and exposition manager, has acquired offices. J. Linton Engle, of the Poor Richard Club, is chairman in charge of local arrangements. Preceding the opening of the convention there will be a two day session of the Direct Mail Service Association.

In the exposition, to be held at the Commercial Museum, paper mills, paper distributors, printers, manufacturers of printing and paper conversion supplies linked with the advertising trades, stationery experts, letter duplicating machines, folder machines, sealing and stamping machines and other equipment and accessories, will be featured. More than 20,000 associates will attend the convention as representatives of outstanding industries, business concerns and mercantile establishments from all points of the globe. Many prominent industries were represented at the Wednesday luncheon held last week when initial steps were taken for the coming convention. Norbert A. Considine, who sailed last week for a sojourn in Europe in recuperation of his health, was actively engaged in promoting the paper industry features at the convention and will continue his work upon his return from abroad in September. In the interim his work with the convention committee will be carried on by his successor as chairman of the arrangements committee, J. Linton Engle, member of the firm of Engle Brown Company, 207 South 9th street.

A. C. Holland Celebrates Golden Wedding

A. Clarence Holland, manager of the S. S. Garrett Company, has joined a group of his fraternal brethren in a fortnights' tour of the Poconos, arranged by the Red Men in celebration of his golden wedding anniversary. Mr. Holland is Past Grand Sachem of the Order of Red Men. He is accompanied by Mrs. Holland.

Oregon Men Organize New Company

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., June 22, 1928.—A group of Oregon men headed by F. W. Leadbetter as president, has organized the Vancouver Kraft Company, Ltd., to acquire and operate properties of the Howe Sound Pulp and Paper Company and Vancouver Kraft Mills, Ltd., the plant site to be located at Port Mellon, British Columbia, on Howe Sound, about 25 miles north of Vancouver, B. C.

This announcement came simultaneously with the offer of a bond issue of $1,250,000 of first mortgage 6½ per cent sinking fund gold bonds, on June 18, by Bond and Goodwin, with the National Trust Company, Ltd., Toronto, Canada, named as trustee.

The new company will engage in the production of high grade sulphate pulp for the manufacture of Kraft paper.

The plant was originally constructed in 1912, but has been subsequently expanded and improved, and has at present a daily capacity of 40 tons of sulphate pulp. With the proposed addition of machinery and equipment which is to be provided by the financing of the new company, the capacity of the plant will be increased to a maximum of 110 tons of pulp per day, with an estimated output of not less than 90 tons per day for 300 days of each year.

Upon completion of the expansion and improvement plan which the present company anticipates, the plant will be a fully equipped and modern sulphate mill with the necessary acid, chipping, digesting, washing, beating and drying units. It will have a modern sawmill, dry kilns and planing mill having a capacity of 200,000 feet of finished lumber per day, the waste from which will supply the pulp mill with raw material suitable for the manufacture of sulphate at extremely low cost.

Mill Men In Ohio To Use Airplanes

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 25, 1928.—At a meeting of Mill men in Middletown the past week the matter of using airplanes for commercial purposes was discussed at length. R. L. Putnam, vice president of the A. W. Shaw Publishing Company; A. L. McDonald, director of developments of the same publication and managing editor of the System Magazine, and Richard Arlen, a pilot, delivered addresses. All brought out the plan of using airships in business and urged the developing of the same in all cities of the Miami Valley.

The publishers came to the Miami Valley in a specially constructed business plane and their talks impressed the manufacturers with whom they conferred. Sound business reasons for the use of airplanes by industries and manufacturers were admitted by the visitors. In this connection it is interesting to note that Frank Smith, of the Sorg-Oglesby-Smith paper mill interests, has been using an airplane for a couple of years. He has his own plane and his own airfield near Middletown, and also keeps an airship at the Johnson field on the Wilmington pike near Dayton.

Ontario Paper Mills Running Near Capacity

Practically Every Section of Industry, With Exception of News Print, Seasonally Active—Some Diminution Experienced In Coarse Paper Production—Following Excellent Spring Trade, Distributors Feel Effect of Approaching Vacation Season

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 25, 1928.—With the approach of the vacation season the wholesale paper trade in Ontario is beginning to feel the effects in diminished sales, although the spring months throughout have yielded a very fair amount of business in most paper lines. Trade in all the sections has been good and now that relations between the dealers themselves in the way of straightening out the wave of price-cutting have been squared away the wholesale paper trade bids fair to have a good summer despite the looked-for holiday interruption. Increased sales of various paper lines is being noted as conditions in the paper converting line improve from month to month.

Envelope manufacturers are quite busy and are consuming a large quantity of paper, while there is a good demand for all classes of blank forms and books. These conditions reflect improved business conditions generally throughout the province. The paper box industry is active and board mills are kept busy supplying the raw material for the container trade. There is a good call for practically all classes of fine papers, although there has been some falling off in demand for coated stock. This branch of the trade, however, has been quite busy up to the present under a heavy call from catalogue and direct mail sources and sales have been satisfactory. Book, bonds, writings and ledgers are selling well in a strong market and mills manufacturing book paper have orders on hand that will take them well into the summer.

Practically every section of the paper manufacturing trade, with the exception of the news print industry, is running pretty close to capacity, although there has been some diminution in the coarse paper section, wrappings and paper bags having fallen off a little. Kraft manufacturers and distributors report a well sustained and improving demand from coast to coast, while the light weight paper situation is entirely satisfactory. There is a well sustained demand for waxing, greaseproof and glassine lines and Canadian-made manilas, blanks and blottings are selling well. Pulp prices remain unchanged in a rather weak market, with paper firms buying raw material only as they require it. None of the pulp firms, however, have any surplus stocks on hand.

Paperboard's Healthy Progress

A sound improvement, both in earnings for the year and in balance sheet position is revealed by the Canadian Paperboard Company, Ltd., in its annual report just issued for the fiscal year of March 31, 1928. The company have mills at Campbellford and Frankfort, Ont., and at Montreal, while a new plant is nearing completion on the Toronto water front. Sales and profits of the company show a satisfactory expansion, earnings on the outstanding common stock being up at 3.39 per cent, as compared with 0.78 per cent for the preceding year, while net working capital is up sharply, this despite the fact that the new mill at Toronto has been under construction during the year under review.

The income account shows sales up at $1,777,014 from $1,678,775, and after cost of sales gross profit amounted to $287,826, as compared with $232,106. Addition of dividends and interest earned and deduction of operating expenses, bond interest and discount, and depreciation, leaves net earnings available for dividends of $95,074, up from $37,721 for the year ended March 31, 1927. Dividends on preferred and common stocks leave a surplus for the period of $39,635.

In the balance sheet current assets are shown up at $430,230 from $399,227, while current liabilities are lower at $228,861, as compared with $266,701. This leaves net working capital of $201,369 up from $133,626 on the previous balance sheet. Among the individual items on the balance sheet, the principal changes include inventories, down at $190,885, from $256,579; receivables up at $183,999 from $141,070; payables up at $225,116 from $175,258; bank loans which amounted to $56,145 on the previous balance sheet, eliminated, and surplus up at $103,808 from $64,173.

In presenting the report to shareholders, President J. G. G. Kerry says in part: "The report makes one of the most satisfactory showings that we have yet had to present to you. The three mills of the company have been operating to capacity throughout the twelve months under review, and gross production has been 30,770 tons, as contrasted with 27,856 tons in the previous year. The mills have been more skilfully operated during the past year than at any other time in their history, and this fact accounts for the satisfactory financial showing made in the face of very active trade competition. The most noteworthy undertaking of the company during the year has been the establishment of a new mill in Toronto. Construction on the new unit is now well advanced, and it is hoped to place it in operation during the month of August of this year."

Shipping Many Trees For Reforesting

The three stations in Ontario conducted by the Ontario Forestry Branch are now shipping out trees for reforestation purposes. It is estimated that when the season is over a total of 10,000,000 will have been distributed as compared with 7,629,000 last year. The nurseries are at St. Williams, Norfolk County; Midhurst, Simcoe County, and near Orono in Durham County, while there are transplanting nurseries at Kemptville and at the Sand Banks in Prince Edward County. Trees grown at these five stations are used for reforestation projects of the province, and up to the present the bulk of them have gone to private individuals. In this distribution emphasis has been laid on the planting of steep hillsides, parts of farms cut off by streams, low places and gravelly and sandy areas. Most of the trees are distributed free for planting, the recipient paying only the express. In 1905, the first year of distribution, 10,000 trees were sent out, the number available for 1928 being one thousand times as great.

Protection Sought For Sulphate

Sulphate of soda, used largely by pulp and paper manufacturers, was the subject of an application this week before the Tariff Board at Ottawa. At present it comes in duty free but the news print people opposed the application for a duty to be imposed. The application was made by the Bishopric & Lent Company, which owns a natural deposit of glauber salts from which sodium sulphate is made, located at Expanse, Sask., and converts these salts into sulphate of soda at its plant. Glauber salts are rated for customs duty purposes at 17½ per cent ad valorem, under item No. 711 of the tariff, which comprises non-enumerated articles. Sulphate of soda, however, was entitled to free entry under item 210.

It was claimed to be impossible to develop the industry with success in the face of the free importation of sulphate of soda from the United States, especially considering the fact that the United States manufacturers in the east have the advantage of freight facilities in the markets of Montreal and Toronto of nearly $5 a ton over the Saskatchewan product. The freight

rates were stated to be from Saskatchewan to Montreal and Toronto, $11 a ton, as compared with the freight from New York at $6.40 a ton. The company has spent $500,000 in plant and development work, had 100 employees, spends $52,000 a week in wages and has a production capacity of 50 tons a day.

Mr. Bishopric said his deposit was estimated at about 10,000,000 tons. There were several other deposits in various parts of Saskatchewan and three other plants. The product was used in making kraft paper, also in the dye and glass industries. The total production would be about 10,000 tons at $12 a ton f.o.b. The total consumption would be about 52,000 tons. The selling price in Indiana, Illinois and New York was $14 a ton, f.o.b. plant. It was produced artificially, the by-product of the acid industry and Saskatchewan people had developed a secret process to get it from the lake after two former failures, entailing a loss to the company of $300,000 in these earlier experiments. A tariff would mean the development of this great natural resource.

During the discussion it was pointed out that 65 per cent of the kraft paper and pulp was exported and there would naturally be a drawback on the raw material of the exports. Even if a duty were imposed the importers could bring in the sodium sulphate for their commodities for export and get a 99 per cent drawback on the duty.

Hopeful of the Sault Ste. Marie Mill

George R. Gray, vice-president of the Spanish River Pulp and Paper Mills, Sault Ste. Marie, Ont., in a recent interview stated that he was hopeful of keeping the Sault mills, now amalgamated with the Abitibi Power and Paper Company, up to the present operating strength, although the mills at Fort William had been closed and curtailment of operations have been found necessary at Espanola and Sturgeon Falls. Mr. Gray said that they might have to suspend one more machine, but in the meantime three machines are operating at the Sault. "In fact," he added, "we are marking time awaiting other developments which we hope will come before long." The mills of the company are affected by the general policy of curtailment. One machine was suspended at the mill last April giving the first indication of the conditions of curtailment referred to by Mr. Gray, but the other three machines at the Sault have been running to capacity. There is a possibility of the stacker at the mill being put in operation before long to add more pulp wood to the reserve pile.

Howard Smith Gets Lincoln Mill

Although no official announcement has as yet been forthcoming of the deal, it was confirmed by Mr. Smith in Toronto this week that he and his vice-president and general manager, Harold Crabtree, of the Howard Smith Paper Mills, Ltd., had secured control of the Lincoln Pulp and Paper Company, at Merritton, Ont., manufacturers of bonds, writings, greaseproof, waxing papers and similar lines. In addition to the Merritton mill, Mr. Smith also controls the Georgetown Coated Paper Company and Ritchie & Ramsay, manufacturers of coated paper at New Toronto. It will be recalled that the Holt, Gundy interests of Montreal recently took over control of the Howard Smith Paper Mills, but whether the recent purchases by the head of that company will eventually revert to the same interests is not at present known. Both the Howard Smith mills and the Lincoln mills maintain selling offices in Toronto.

Notes and Jottings of the Trade

A charter has been granted the Employees Mutual Benefit Society of Spruce Falls Power and Paper Company, Ltd., with head office at Kapuskasing, Ont. Among the incorporators are John H. Black and George Barber, of Toronto, and S. R. Stilp, E. S. Noble and T. A. Robinson, of Kapuskasing.

By supplementary letters patent the capital stock of the Superior Paper Mills, Ltd., Thorold, Ont., has been increased from $250,000 to $500,000 by the creation of 2,500 shares of $100 each.

The old Westside School of Thorold, Ont., which was used for the housing of soldiers during the war, will be used for paper converting purposes. The School Board has leased the building to the National Paper Company of Hamilton.

The Corrugated Paper Box Company, Ltd., Toronto, was recently granted a Federal charter to carry on business as manufacturers and dealers in envelopes, paper, paper boxes, cartons and other fiber products. H. E. Manning, solicitor, is one of the incorporators. The capital of the new company consists of 15,000 preference shares of $100 each and 100,000 common shares without par value, providing the aggregate of same does not exceed $100,000.

A provincial charter has been granted to the Canadian American Pulp and Paper Corporation, with head office in Montreal, and with a capital stock of 28,400 shares of no nominal or par value. The amount of capital stock with which the company will start operations will be $142,000. The provisional directors are Arthur Fitzpatrick, William Amyot and Maurice Dupre, of Quebec.

Thompson & Heyland Lumber Company, Ltd., Toronto, have contracted for over 90,000 cords of pulp wood this season, about sixty per cent to be peeled. Operations have been a little late in getting under way and the amount of peeled spruce taken out will not be as great as last season. Over half the total cordage will be made up of spruce, the remainder poplar and other woods.

The Murray Bay Paper Company, Ltd., has been granted a provincial charter with head office in Montreal. The capital stock will be 50,000 common shares without nominal or par value, subject to the increase of such capital stock under the provisions of the Act, and the amount of capital with which the company will start business will be $250,000. The company is empowered to manufacture, sell and deal in pulp and paper of all kinds.

The Spanish River Pulp and Paper Company, Sault Ste. Marie, Ont., has issued a statement that conditions regarding employment and production at Espanola are not nearly as unfavorable as painted and the same observation applies to the Sturgeon Falls plant. The official statement says that only about fifty men have been dropped from the payroll at Espanola and there is very little change in the matter of production since the concern amalgamated with the Abitibi Power and Paper Company. The output has decreased about thirty-five tons a day at the Sault and the outlook is not nearly as bad as has been pictured, the statement says.

Representatives of the Ontario and Quebec lithographing and printing trades met paper manufacturers and wholesalers in Montreal this week and conferred on the subject of standardization of weights and sizes of paper, with the object of eliminating off-sizes of paper. A strong committee was appointed to canvass the whole situation and the belief was expressed that the project would shortly be achieved. The movement was inaugurated by A. L. Lewis, of Toronto, president of the United Typothetae of America.

George Wilson, of Clarke Bros., Ltd., wholesale paper dealers, Winnipeg, was a recent caller on the Toronto paper trade.

Simultaneously with the convention of the Canadian Paper Box Manufacturers' Association, "The Glue Pot" put out another number. The booklet contains a lot of carefully prepared and edited chit chat of the trade and it is well printed. "The Glue Pot" was originally started in 1918 by two anonymous founders who were eventually revealed as W. P. Bennett, of the Rudd Paper Box Company, and J. B. Lawrason, of Lawrason & Doughty, Toronto.

Schroon River Stockholders Meet

[FROM OUR REGULAR CORRESPONDENT]

WARRENSBURG, N. Y., June 25, 1928.—At a meeting of stockholders of the Schroon River Pulp and Paper Company held at the mill offices here Franklin E. Pasco was elected to fill a vacancy in the board of directors. He succeeds the late W. R. Durkee of Fort Edward who was a member of the board for several years and whose death occured recently. Mr. Pasco is a prominent business man of Warrensburg.

Canadian Newsprint Mills May Have Dictator

Larger Groups Reported Responsible for Move to Regulate Production and to Save Industry From Cut-Throat Competition—Several Smaller Organizations Have Signified Their Willingness to Co-operate—Two Names Suggested for Appointment

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., June 25, 1928.—There is some talk here of negotiations being under way to secure the appointment of a dictator to regulate the production of the Canadian news print mills and to save the industry from cut-throat competition. So far two names have been suggested for the appointment, namely Frank P. Jones, formerly general manager of the Canada Cement Company, and Hubert Biermans, formerly managing director of the Belgo-Canadian Pulp and Paper Company. It is stated that the lead towards the voluntary appointment of a dictator comes from the larger groups, but that several of the smaller companies have signified their willingness to co-operate. Meanwhile pulp and paper issues are among the weakest stocks in a bear market which has brought down the prices of nearly all issues traded in on the Montreal Exchange.

Abitibi Bond Issue Arranged

The National City Company, of New York, has arranged a $50,000,000 refunding operation by which the Abitibi Power and Paper Company will retire all its present funded debt through the issuance of new mortgage bonds at a substantial saving in interest. This issue is the final step in the refinancing of the company following the recent merger.

Through the absorption of the companies taken over in the consolidation, Abitibi has become one of the largest producers of news print paper in the world. The properties taken over include those of the Spanish River Pulp and Paper Mills, Ltd.; the Fort William Power Company, the Manitoba Paper Company, Ltd., the Ste. Anne Paper Company, Ltd., and the Murray Bay Paper Company, Ltd. The properties thus combined have a yearly capacity of 650,000 tons of news print, capable of expansion to 1,000,000 tons from present timber and water power resources.

One of the subsidiaries of Abitibi Power and Paper Company, namely, Ste. Anne Paper Company, will not participate in the $4 dividend rate that went into effect on the new common stock of Abitibi on the first of January last, until July 1 of next year, a period of eighteen months after the company was considered as part of the merger organization, and the same period after this dividend rate was made applicable to the old shareholders of Abitibi and Spanish River. At the same time the earnings of Ste. Anne Paper Company will accrue for Abitibi from the beginning of 1928.

New Sulphite Mill for Frasers

The Hon. D. A. Stewart, Minister of the Interior for Canada, in an address before the Board of Trade in Campbellton, N. B., announced that the Fraser Companies will commence the construction in September of a sulphite mill with a capacity of 150 tons per day. By the way, September 1 will mark the completion of a construction program put into operation by the companies a year ago.

Fraser's have recently put in operation a high grade paper board machine at their Edmundston mill, with capacity of sixty-five tons a day. Fraser's now have in operation four high grade paper machines, which are operating at capacity of 165 tons per day. Adding to this capacity the new Edmundston board machine of 65 tons daily and the unbleached sulphite pulp output of the company's Chatham mill, gives the company a present total production of high grade paper and board of 230 tons, plus 65 tons of unbleached pulp; or approximately 300 tons per day.

Installation of the company's fifth machine, having a capacity of 65 tons per day of catalogue paper, is proceeding, as is also installation of a 135-ton board machine at Madawaska. These two machines should be operating by September 1, from which date Fraser's will have a total production capacity of approximately 500 tons per day of high grade paper and board products.

Macleod P. & P. Co. Resumes Operations

The Macleod Pulp and Paper Company, of which Frank J. Barnjum, of Annapolis Royal is president, has resumed operations at Rapid Falls and Cowie Falls on the Mersey River in Nova Scotia. The plants had been idle for nearly a year and a half and of late have undergone extensive renovations. The output of mechanical pulp is about forty-five tons a day. The company is well supplied with wood, both mills having raw material enough on hand to last them for a year. Contracts are reported to have been signed with English paper manufacturing concerns to take practically all the output which will be shipped overseas for the balance of the year.

Donnacona Improves Service

Canadian Vickers recently delivered to the Donnacona Paper Company a large steel pulpwood-carrying barge, and they have an order for a similar barge which will be delivered shortly. These steel barges, which are fitted with every facility to handle pulpwood cheaply, will be used by Donnacona Paper to facilitate delivery of pulpwood at its mill from its timber lands on the Lower St. Lawrence River, and should result in considerably decreasing the handling charges of the company's down-river wood.

Paper Prices Steady in Indianapolis

INDIANAPOLIS, Ind., June 25, 1928.—In spite of the fact that the general paper demand here is slower, there does not seem to be any marked inclination to cut prices in order to boost volume. The jobbers report that the mills, in spite of the general situation, are holding up their prices and there is nothing else for them to do. They refuse to trade dollars just for the fun of trading.

Some sections of the state seem rather active, but there are whole areas where buying is cut to the bone and stocks being reduced to the vanishing point. The coming of spring—while it has not really come yet judging from weather conditions—is expected to boost the demand for paper napkins, paper cups and plates and other picnic accessories. Inquiries being received locally indicate that this business will start just as soon as there is any weather justification.

The demand for building papers is very poor for this season. Again the weather has played some part, but the truth is that there is little building now and little in prospect. There is some demand for glassine specialties from the confectionery and food specialty trade and some demand for heavy stock for box making purposes.

Unfair Competition

French Lick, Ind., June 25, 1928.—"Unfair Foreign Competition," was the subject of an address given before the Lithographers National Association last week by Warren B. Bullock, manager of the Import Committee of the American Paper Industry. He discussed the work of that organization, pointing out several instances in which action had been taken involving foreign lithographed material, the Import Committee having taken this action because of the supplanting of domestic paper, as well as lithography, in such instances by the foreign shipments which had not been paying a proper duty.

Boston Paper Market Continues Fairly Active

Moderate Volume of Orders Booked During Past Week—Some Distributors of Paper Complain of Summer Dullness—Easier Tendency in Coarse Paper Industry Attributed to Over-Production of Kraft—Paper Stock Section Practically Unchanged

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 25, 1928.—Sales of paper have been made in fair volume in some quarters, although a number say that business has been quiet, and that the summer dullness has set in a month earlier than usual. Some ascribe the premature lull to the rainy weather. Fine papers are unchanged in price, however, and in some quarters an average amount of business is being done. Overproduction of kraft is said to have caused an easier tendency. While the No. 1 grade is still quotable at .05½ @ .06½ cents, No. 2 is now listed at .03¾ @ .04½, compared with a former range of .04¼ to .05, all prices being f. o. b., mill.

Old papers are the same as a week ago, but it is said to be largely a buyers' market in this commodity, as well as rags. In bagging there have been a few price changes. Foreign gunny bagging No. 1 is quoted at 1.60 for the maximum price, compared with a former figure of 1.75. Domestic gunny bagging No. 1 is quoted at a maximum of 1.50, compared with 1.60 @ 1.70.

Foreign manila rope has advanced, so that it is now quotable at 3 @ 3.50, compared with a former range of 2.50 @ 2.85. Scrap burlap has declined 10 points, and is now at 1.30 @ 1.40. The maximum quotation for heavy wool tares is 1.50, compared with a former value of 1.60 @ 1.65.

In new domestic rags silesias are higher, with sellers asking a minimum of 7 cents for the No. 1 grade compared with 5 to 5¼ cents. In foreign rags, dark cottons are a bit stronger, and 1.60 to 1.65 is asked, compared with 1.55 to 1.60 previously.

Hollingsworth & Vose Outing

The outing of the Hollingsworth and Vose Company, held at Lake Nipmuc Park, Mendon, Mass., Saturday, June 23, was a highly enjoyable affair. About 1,700 were present, including Vice-President Louis E. Vose and Mrs. Vose, Superintendent H. R. Lewis, of the West Groton Mill and Mrs. Lewis, the Boston office staff, employees of the Walpole and West Groton Mills, and families.

The company provided for rides for the children on hobby horses and ponies, and for boat rides and moving pictures for all. Lockers for swimmers were similarly available. Among the enlivening features were a band and free dancing from 4 to 6 p. m. A bountiful banquet was held under a tent at 1 p. m., after a picture of the party had been taken.

There were several athletic events. In a base-ball game between the married men and the single men of both mills and the Boston office the bachelors won by the score of 11 to 9. Walpole won the silver cups in the horse shoe pitching contest. In the bowling contest between teams representing the Boston office and each mill, West Gorton secured the prize, a silver cup. In the pipe race for men over 40, Fred E. Smith carried off the prize, a pipe and humidor of tobacco.

In other contests prizes of $3, $2 and $1 were offered for first, second and third places. They included a 50-yard dash for the office girls, won by Marian Dimlick, with Evelyn Parker and Myrtle Mullen second and third respectively. In the egg race for girls, Pinkie La Vangie of Walpole was first; Mary Jennings, of West Groton, second, and Ruth Jennings, of the office staff, third.

Doris Batchelder, of the office staff, won the clothespin contest.

There were also on the program races for boys and girls between 8 and 12, three-legged races and potatoe races for boys and girls, and sack races for boys.

Nat Bartlett, traffic manager of the company, was the announcer and a prominent moving spirit of the occasion. Committees were as follows: Outing—Louis E. Vose, chairman, R. Raymond Lewis, Nat F. Bartlett, T. Compton Walsh, Stuart Stone, and Ruth I. MacLeod. Ball game—Fred E. Smith and Pat Haley (married men), John Cavanaugh and Jack Doherty (single men), Nat Bartlett, umpire. Sports—L. E. Vose, chairman, Arthur Platt, Everett MacLeod, John Robinson and Gene Smith. Transportation—Stanley McKnight, Tom Murray, John A. Lynch, Stuart Stone.

A first-aid tent with a nurse in attendance was provided.

Samuel R. Jones Passes Away

Samuel Ralph Jones, aged 50, a director in the paper mill machinery manufacturing concern of E. D. Jones & Sons Company, of Pittsfield, Mass., with which he has been identified for 25 years, died Thursday, June 21. He is survived by his widow and one son, S. Harley Jones.

News of the Trade

The Worthy Paper Company has added three new and very attractive shades to the Georgian line—tropic blue, green, and yellow, making a total of 12 distinctive colors, which Arthur E. Ham & Sons, of 10 High street, stock in all sizes and weights.

Ex-Governor Rolland H. Spaulding, of New Hampshire, president of the Spaulding Fibre Company, Inc., North Rochester, Grellet Collins, president of Dill & Collins Company, Philadelphia, and W. R. Ingersoll, of the sales force of that company, called on the trade last week.

The Tileston & Hollingsworth Company is to build a new warehouse at its plant in Hyde Park, which will cost, with equipment, approximately $100,000. The structure will be of concrete, brick and steel and will be used principally for the storage of raw materials. The contract has been awarded to the Morton C. Tuttle Company.

The Massachusetts Tag & Label Company, Inc., has been incorporated with a capital of $100,000 to manufacture all kinds of tags and labels. The incorporators are Phillip Cowin, Isidor Fox, both of Boston, and Myer L. Orlov, of Brookline.

Nathaniel F. Bartlett, traffic manager of the Hollingsworth & Vose Company, will be the announcer at the annual outing of the Traffic Club of New England to be held Tuesday, June 26, at the club-house of the United Shoe Machinery Company Athletic Association at North Beverly.

Charles S. Trefrey, salesman for the Tileston & Hollingsworth Company, was elected secretary of the Advertising Club of Boston at the recent annual meeting.

St. Regis Officials Visit Oswego

OSWEGO, N. Y., June 25, 1928.—A party of officials of the St. Regis Paper Company from the New York offices were in Oswego this week on a business trip and it is understood that plans were discussed for the new manufacturing unit which is to be added to the plant of the Taggart-Oswego Bag and Paper Company. The party included Ralph Maltby, Ambrose Plunkett and Ray Parham.

After completing their business in Oswego the party motored to Watertown and later in company with Corwin T. Jewell, manager of the St. Regis Company, went to Herrings and inspected the recently electrified plants of the company there. While in Oswego the officials also inspected the plants of the Oswego Board Corporation, the Taggart-Oswego Bag and Paper Company and the recently completed power plant.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Baldwinsville, Mass.—The A. L. Adams Paper Company has asked bids on general contract and plans early award for proposed new addition to its plant, to be two-story, reinforced-concrete, 80 x 105 feet, reported to cost close to $50,000, with equipment. Leo Schlick, 314 Beacon street, Boston, is architect and engineer.

Seattle, Wash.—The Pacific Straw, Paper and Board Company, Longview, Wash., has completed plans for the construction of a one-story factory branch and distributing plant at 2942 East Marginal Way, Seattle, to be about 75 x 80 feet. General contract has been let to C. J. Strandburg, 5633 Fifth avenue, N. W., Seattle. The building will be ready for occupancy at an early date.

Muskegon, Mich.—The Michigan United Paper Company, recently organized by C. N. Sessions and Wallace Foote, both of Muskegon, with capital of $50,000, plans operation of plant in this vicinity for the manufacture of special paper goods, including asphalted paper, waxed paper, etc. It is understood that production will begin at early date.

Charlotte, N. C.—The Charlotte Paper Company, 214 South College street, is said to have plans in progress for the construction of a new local plant for the manufacture of folding paper boxes, cartons, etc., to cost close to $100,000, with equipment.

Chattanooga, Tenn.—The Alpha Cone Company, Saulsbury, Tenn., P. J. Cavanaugh, head, has leased a new building, now in course of construction, on Wheeler street, Chattanooga, for the establishment of a plant for the manufacture of paper cones as used in textile mills. New structure will be ready for occupancy at an early date. It is understood that equipment to be installed will be acquired at early date.

Cohoes, N. Y.—The Lion Bag and Paper Company, recently organized under the direction of Joseph Schron, 2 Rector street, New York, attorney, who will represent the company, plans operation of plant at Cohoes, for the manufacture of paper bags and containers, and will provide facilities for initial production at an early date.

Brooklyn, N. Y.—The Manifold Supplies Company, Third avenue and Douglas street, manufacturer of paper goods for manifolding, etc., has awarded a general building contract to William Flanagan, 103 Park avenue, New York, for its proposed new factory addition, to be three-story, reported to cost about $50,000, with equipment. Improvements will be made in present plant. Lauritz Laurentzen, 308 Livingston street, Brooklyn, is architect. A. L. Foster is president.

Charlotte, N. C.—Edward B. Kidd, 1403 East Boulevard, Charlotte, is at the head of a project to establish a local plant for the manufacture of paper boxes and containers. A site, improved with two-story building, fronting on the line of the Piedmont & Northern Railway, has been taken over; the structure will be remodeled and improved and equipment installed at early date. It is understood that a company will be organized to carry out the enterprise.

Detroit, Mich.—A. Simon & Company, Brewster and Deguindre streets, paper goods, have plans in preparation for the construction of a new building on Leland avenue, designed for storage and distributing service. It will be two-story, 100 x 150 feet, brick and reinforced-concrete, reported to cost about $85,000, with equipment.

Monroe, Mich.—The River Rasin Paper Company, Monroe, is completing an expansion and improvement program in progress for more than a year past, representing an investment of more than $1,000,000, and additional facilities so provided will be placed in service at once. The capacity of the mills has been increased about one-third. The company operates nine plants in the Monroe district, giving employment to approximately 900 men, with weekly payroll aggregating $35,000.

Hoquiam, Wash.—The Grays Harbor Pulp Company, Hoquiam, has made application to the State Department of Hydraulics, for permission to use water from the East Branch of the Hoquiam River, for power purposes, installation to include a power dam, pipe line, etc., reported to cost about $400,000. It is proposed to begin work as soon as authority is secured.

Camden, Ark.—The International Paper Company, 100 East 42nd street, New York, is reported in negotiation for a tract of property at Camden, where paper mill is now being operated, as site for a plant for the manufacture of paper bags and containers, to be operated by the Continental Bag Company, a subsidiary organization. The new plant is reported to cost close to $1,000,000. The project, it is understood, is in a preliminary stage.

Brooklyn, N. Y.—The Hamilton Bank Note Company, 142 Adams street, manufacturer and distributor of bond and watermarked papers, etc., has asked bids on general contract for the construction of a new addition to its plant, to be located at Adams and High streets, to be four-story, brick and concrete, reported to cost more than $85,000, with equipment. A portion of the structure will be used for printing service. Lockwood, Greene & Company, 100 East 42nd street, New York, are architects and engineers.

Philadelphia, Pa.—Fire, June 16, damaged a portion of the five-story building at 225-7 Church street, including the plant of the Dee Paper Company, occupying the second and third floors. An official estimate of loss has not been announced. It is planned to replace the damage at an early date.

Everett, Mass.—The Stone & Forsyth Company, 67 Kingston street, Boston, paper goods, is beginning superstructure for a new two-story addition to plant at Everett, reported to cost about $45,000, and proposes to have ready for service at an early date.

Wheeling, W. Va.—The United States Corrugated Fibre Box Company, Seventeenth street, is reported to be making ready for immediate construction of a proposed new plant addition, previously announced, and for which an appropriation of more than $80,000, is understood to be available.

Buckingham, Que.—The Maclaren Lumber Company, Buckingham, is reported to be planning the construction of a new pulp and paper mill for news print production in the Lievre River district, Quebec Province, north of Ottawa, Ont. The plant will

consist of a number of units, and will be equipped for an initial rating of about 250 tons per day. In connection with this project, the same company is said to be considering a hydroelectric power installation at High Falls, on the same river, where it constructed a dam a number of months ago. The initial plant capacity will approximate from 75,000 to 100,000 hp.; power station will be located about 30 miles from mill site, and transmission line will be built.

Richmond, Va.—The Duplex Envelope Company, 1339 Broad street, has been organized to take over local company of same name and carry out general expansion program. The new organization is capitalized at $380,000 preferred stock, and 35,000 shares common stock, no par value, as compared with 800 shares of stock for former organization. It is understood that plant capacity will be advanced.

Pittsburgh, Pa.—The Impression Products Company of Pennsylvania, Inc., recently organized by Kenneth Nuttall, 1101 La Cleair avenue, and associates, plans early operation of local plant for production and distribution of carbon papers and other kindred products. Mr. Nuttall will be treasurer of new organization. A. X. Alpern, 3441 Beechwood boulevard, will also be one of heads.

New York, N. Y.—The Exclusive Novelty Corporation, care of Allan Taub, 3265 Bedford avenue, Brooklyn, N. Y., has been organized by Mr. Taub and associates, to operate a local factory for the manufacture of paper boxes and kindred specialties. Abraham Feingold, 1124 Avenue K, Brooklyn, is also interested in new organization.

Camden, Ark.—The International Paper Company, 100 East 42nd street, New York, has plans under way for improvements in local mill property, including installation of a new disposal plant for lime sludge, reported to cost about $80,000, with equipment. The company has concluded negotiations for expansion in southern property holdings, and has acquired the plant and property of the Southern Paper Company at Moss Point, Miss., comprising a recently completed pulp and kraft paper mill, with rated output of 100 tons per day. New owner will take over property at once, and will continue operations as branch mill. It is currently reported that arrangements will be made in near future for increased output. A consideration of more than $4,000,000 was given for the plant. The company is also reported to have acquired additional mill property at Pyrites, St. Lawrence County, N. Y., for increase in news print capacity at that place.

San Francisco, Cal.—Sufficient stock has been deposited to insure the proposed merger of the Crown Willamette Paper Company, 248 Battery street, and the Zellerbach Corporation, Sacramento, Cal., and arrangements will be carried out at an early date. Different mills of the two companies in California, Oregon and Washington will be continued as in the past, and operated under one management.

Three Rivers, Que.—The St. Lawrence Paper Mills Company, Ltd., Montreal, Que., has awarded a general contract to the Foundation Company of Canada, Ltd., 746 Sherbrooke street, West, Montreal, for a proposed new addition to its mill, including several units to increase the capacity from 300 to 450 tons of news print per day. The expansion will cost close to $3,000,000, and work will be started at once. The company has disposed of a stock issue of $4,160,000, to provide funds for the work. H. S. Taylor, 1111 Beaver Hall Hill, Montreal, is consulting engineer.

Campbellton, N. B.—The Fraser Companies, Ltd., Edmundton, has plans under way for the construction of new mill units at Athol, near Campbellton, and at Millbank. The first noted includes a new sulphite pulp unit, consisting of several buildings, with power house, machine shop and auxiliary mechanical structures to cost more than $4,000,000; a site has been selected on the Restigouche River. At Millbank, the company purposes to construct a new mill unit with capacity of about 100 tons per day, reported to cost close to $2,500,000, with machinery. Work is now in progress on an expansion program at the Edmundston mill to more than triple the present capacity; the development is reported to cost more than $4,000,000, and will be pushed to completion.

New Companies, Etc.

Chicago, Ill.—The Capitol Paper Box Company, 2524 South Western avenue, has been incorporated with capital of $6,000, to manufacture paper boxes and cartons. The incorporators are Harry Burak, and Max Einbund.

New York, N. Y.—The Eastern Folding Box Company, 405 East Fourth street, has filed notice of increase in capital from $50,000 to $90,000, for increased capacity.

Lockland, Ohio—The Valley Waste Paper Company, Inc., has been incorporated with capital of 200 shares of stock, no par value, to deal in waste papers and kindred products. The incorporators are Arthur Rabkin, Charles A. Hinkle, and F. E. Plogman, all of Lockland.

Chicago, Ill.—The Atlas Envelope Company, 848 Noble street, has been organized to take over and expand the company of same name with factory at address noted. The new organization is headed by Charles P., William C., and Elmer Glascon.

New York, N. Y.—The Mill Specials Paper Company, Inc., has been incorporated with capital of $20,000, to manufacture and deal in papers and paper products. The incorporators are Jesse S. Klinoh and David L. Engel. Company is represented by Ridgway, Ridgway & Slote, 41 Park Row, New York, attorneys.

Dallas, Tex.—The Dixie Wax Paper Company, Inc., 1300 South Polk street, has arranged for an increase in capital from $100,000, to $275,000, a portion of the proceeds to be used for expansion.

Chicago, Ill.—The A. E. Dorsey Label Company, 712 Federal street, has been incorporated with capital of $70,000, to manufacture paper labels and kindred products. The incorporators are Cameron C. Dorsey and Henry A. Steinberg.

Richmond, Va.—The Richmond Envelope Company, 220 South Fifth street, has arranged for an increase in capital from $50,000 to $200,000, for general expansion.

Boston, Mass.—Edward B. Russell Envelopes, Inc., has been incorporated with capital of $25,000, to manufacture and deal in envelopes and kindred paper goods. The incorporators are Russell A. Hayward and S. E. Russell, Somerville. Last noted is treasurer of company.

Marinette, Wis.—The Continental Bag and Paper Mills Corportation, New York, a Delaware corporation, has filed notice to operate in Wisconsin, with capital of $254,100. W. W. Hinnenthal, 2311 Riverside avenue, Marinett, is representative.

Springfield, Mass.—Kurnitsky Paper Company, Inc., has been incorporated with capital of 1,000 shares of stock, no par value, to manufacture and deal in paper products. Isaac Kurnitsky is president; and Joseph Switsky, 44 Vernon street, Springfield, treasurer of the company.

Second Generator Started at Paugan

The second generator has been started in the new Paugan, Quebec, powerhouse of the Gatineau Power Company, one of the largest hydro-electric stations on the North American continent. Designed for 272,000 horsepower in eight generators of 34,000 horsepower each, the plant is located on the Gatineau River, thirty-three miles north of the City of Ottawa. The Gatineau Power Company is a subsidiary of the Canadian Hydro-Electric Corporation, Limited, which in turn is a subsidiary of the International Paper Company.

At Chelsea and Farmers, twenty-six miles below Paugan, the Gatineau Power Company has hydro-electric plants in operation and delivering power to the Gatineau news print paper mill of the Canadian International Paper Company. The aggregate designed capacity of the Paugan, Chelsea, and Farmers powerhouses is 562,000 horsepower, greater than the developed horsepower on the American side of Niagara Falls.

Trade Mark Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, Barrister Bldg., Washington, D. C., trade-mark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them in advance search free of charge on any mark they may contemplate adopting or registering.

SYL-VANIA, No. 253,753. Hanover Cordage Company, Hanover, Pa. Fortube rope, wall-paper, twine, jute wrapping twine, and jute miller's twine.

INDIAN BLOTTINGS, No. 261,769. Rochester Paper Company, Rochester, Mich. For blotting paper.

WALL PAK, No. 263,836. A. H. Stebbins, Little Rock, Ark. For wall paper packed in cartons.

READY REFERENCE, No. 263,897. John W. Schoelch, St. Louis, Mo. For blank books, ledgers, check books, and cash books.

THE SIGN OF QUALITY, No. 264,654. A. J. Reach Company, Philadelphia, Pa. For baseball score books, and basketball score books.

TAN JER WRAPPER, No. 264,680. Graham Paper Company, St. Louis, Mo. For wrapping paper.

FLATPAKIT, No. 214,454. American Sales Book Company, Ltd., Toronto, Canada. For paper sheets, strips, rolls, pads, and the like suitable for manifolding use including printed forms for all kinds of business transactions; paper record sheets; sales checks; sales slips; sales books; letter sheets, billing sheets, invoice sheets, etc.

THE PHILLIPS SYSTEM, No. 249,375. William A. Phillips, Milwaukee, Wis. For balance sheets, journal sheets, cash slips, application sheets for loans and accounting forms generally for finance corporation systems.

POND'S, No. 259,420. Pond's Extract Company, New York City. For tissue paper for removing cold cream.

RIBBONFOLD, No. 261,440. Independent Paper Mills, Inc., New York City. For paper napkins.

CRAGMONT, No. 264,497. Mutual Stores, Inc., Oakland, Cal. For toilet paper and paper napkins.

AMERICAN BEAUTY, No. 262,585. C. R. Whiting Company, Inc., Newark, N. J. For plain, coated, or decorated paper used for covering, wrapping, or lining boxes and containers.

RITEOCRAT, No. 264,554. Birmingham Paper Company, Birmingham, Ala. For tablets and writing paper.

IRON TAG, No. 251,969. Hollingsworth & Vose Company, Boston, Mass. For paper in sheets or rolls suitable for folders, envelopes, covers, mounts, tickets, tags, stencils, patterns, lamp shades, etc.

MONETTE BABY DIAPERS, No. 263,881. Monette Company, Green Bay, Wis. For paper diapers.

MONETTE, No. 263,946. Hoberg Paper and Fibre Company, Green Bay, Wis. For toilet paper, paper towels, and paper napkins.

ROCK MT. BOND, No. 265,617. The Carter-Rice & Carpenter Paper Company, Denver, Colo. For bond paper.

INTERMOUNTAIN BOND, No. 265,618. The Carter-Rice & Carpenter Paper Company, Denver, Colo. For bond paper.

BONTUK, No. 260,474. John Thomlinson, Ltd., Partick, Glasgow, Scotland. For paper merchandise bags and envelopes.

STRONGBOX with fanciful picture, No. 251,668. Hoague-Sprague Corporation, Lynn, Mass. For pasteboard boxes and cartons.

FLEXI-CARTON, No. 264,667. Bemis Bro. Bag Company, St. Louis, Mo. For paper sacks.

BLUE JAY, No. 266,350. Blackwell Wielandy Company, St. Louis, Mo. For pencil and ink tablets, composition books, drawing paper, spelling tablets, etc.

BLUE MOON BOND, No. 264,869. Byron Weston Company, Dalton, Mass. For writing and cover paper.

ECONOMY, No. 189,367. McLaurin-Jones Company, Brookfield, Mass. For glazed or friction-coated paper used for box covers.

ENKRUSTO, No. 263,736. The Tuttle Press Company, Appleton, Wis. For metallic coated paper for wrapping and decorative purposes.

ROCKWEAVE, No. 264,980. Hillside Cotton Mills, Lagrange, Ga. For twines.

Answers to Simplification Questions

WASHINGTON, D. C., June 20, 1928.—Some interesting tabulations have been made by O. H. Colwell, of the Simplified Practice Division, Department of Commerce, from answers to questionnaires which he received in connection with adherence to the paper simplification recommendation, No. 22, on paper. The figures are based on thirty-five replies received from paper firms. The information submitted covered the calendar year 1927.

Question No. 1—Please estimate the percentage of your production or sale of paper for 1927 which was in the standard stock sizes shown in the paper recommendation. The average of the replies was 64.78 per cent.

Question No. 2—Is the demand for non standards stock sizes sufficiently large to warrant any change in these simplifications? Twenty six answered No, four yes, and five blank.

Question No. 3—Does the present consumer demand indicate that further eliminations can be advantageously effected- Twenty six answered No, and 7 blank.

Question No. 4—What measures, if any, are you using to promote, establish, and sell the simplified line?

a—Cataloguing items with distinguishing marks indicating simplified lines. Sixteen No; four yes and fifteen blank.

b—Cataloguing only simplified items. Seven no; 17 yes and 11 blank.

c—Instructing salesmen to sell only simplified lines. Sixteen no, nine yes and 10 blank.

d—Promoting simplified line through articles in trade papers, individual pamphlets, associated organs, or company advertising. Five no, six yes and 24 blank.

e—Is there any price differential favoring the simplified lines as against non-standard items? Eighteen no, 14 yes and three blank.

The following sizes were recommended to be added to the present simplification—17 x 26; 24 x 36; 26 x 40; 28 x 42; 29 x 42; 34 x 44; 36 x 48; 42 x 56. Also the following ledger paper sizes be added—23 x 36; 21 x 32; 20 x 28; 16 x 42; 18 x 46; 19 x 48; 22½ x 22½; 24½ x 28½; 22½ x 34.

It was also recommended that the following sizes be eliminated: 26 x 29; 29 x 52; 35 x 45½; 38 x 50, and 44 x 64.

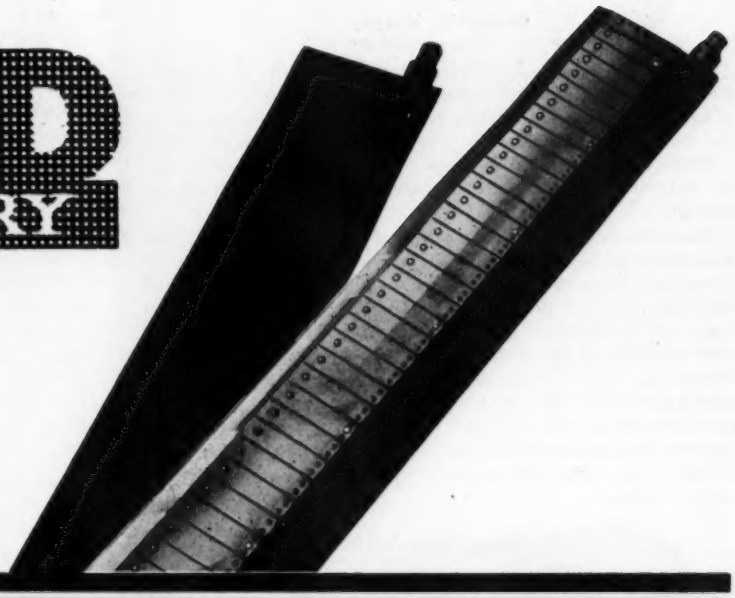
Question No. 5—Have you experienced any benefits from the operation of the simplification program. Greater production; smaller inventory; systematic stock inventory; fewer sizes to make and carry in stock; reduced cost of production; are some of the benefits resulting from the operation of this recommendation. However, some of the mills feel that no benefits have been derived therefrom, and that greater adherence could be secured if the printers would specify the standard sizes of paper.

One concern suggested that further work along the lines of standardization of paper should be conducted among the various manufacturers.

Wisconsin Vocational Training Plans

APPLETON, Wis., June 25, 1928.—Foremanship training, which has been conducted in the paper industry for the last several years, will be carried on in Wisconsin on a larger scale this year. Arrangements for fall evening classes are being made by H. G. Noyes, who has charge of paper and pulp instruction for the state. Cities included for the courses will be Neenah, Menasha, Appleton, Green Bay, Marinette, Kaukauna, Wisconsin Rapids, Stevens Point, Mosinee, Wausau, Tomahawk, Rhinelander and Eau Claire. Mr. Noyes has just returned from Pittsburg, Kans., where he attended a conference for foremanship and apprentice trainers at the Kansas State Teachers college.

BIRD MACHINERY



Important

Up-to-date paper makers have been quick to appreciate the great operating advantages resulting from proper doctor engineering.

That is why the Vickery Doctor is being so widely employed on all types of rolls in mills making all grades. It keeps every roll always clean without trouble or adjustment.

The advantages of standardizing on Vickery Doctors are too important to overlook.

Ask us for layouts and estimates.

BIRD MACHINE COMPANY
South Walpole -:- Massachusetts

The Vickery Doctor

2012

Obituary

George H. Murphy

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., June 25, 1928.—George H. Murphy, 59 years old, a widely known paper mill executive of Northern New York, died at his home in Watertown this week after being in failing health for six months. Mr. Murphy was born in Canada but has been a resident of Northern New York for the past fifty years except for periods when he was connected with paper mills in other sections.

His first connection with the papermaking industry was in Massena where he became foreman of a mill. Later he removed to Covington, Va., where he served as superintendent of fiber board and pulp mills. Following this he became superintendent of a board mill at Rumford, Me. For several years past he has been superintendent of the plant of the Brownville Board Company at Brownville. Mr. Murphy became ill about six months ago and later was forced to give up his duties at the Brownville mill. The survivors include his wife and one son. The funeral was held from his late home early last week and was attended by numerous friends among paper mill executives of the North Country. Burial was in Carthage.

Samuel Ralph Jones

[FROM OUR REGULAR CORRESPONDENT]

PITTSFIELD, Mass., June 26, 1928.—Samuel Ralph Jones, aged 50, a director and member of the firm of E. D. Jones & Sons Company, manufacturers of paper mill machinery, died Thursday afternoon at his home, 551 South street. He was seriously ill from influenza last March and complications set in from which he never recovered.

He was the son of the late Mr. and Mrs. E. D. Jones and educated at the Pittsfield schools, Peekskill Military Academy and Worcester Polytechnic Institute. His father then took him into the firm and he has since been identified with it. He was a member of the Park Club. He leaves a widow, who was formerly Miss Adelaide Flanders of Pittsfield and one son S. Harley Jones.

George H. Ireland

George H. Ireland, one of the organizers and incorporators of the Ireland & Taub Paper Company, Inc., of 121 Sullivan street, New York, and treasurer of that company as well as of the William Dunklin Company, Inc., 547 Greenwich street, at his death, passed away Friday, June 15, as a result of complications arising from disease of the kidney. He was 34 years old and was one of the keenest men in the paper trade. His circle of friends was very wide, and all of them were sincerely affected by his untimely death. He is survived by Mrs. Ireland and a daughter.

Frank A. Williams

The death of one of the oldest employees of the George A. Whiting Paper Company, of Menasha, Wis., occurred last week. He is Frank Alanson Williams, of Neenah, Wis., who had worked there for forty years. His end came suddenly, following a stroke.

Open San Jose Division

SAN JOSE, Cal., June 20, 1928.—An opening of unusual interest took place on May 18 and 19 when the San Jose Division of Blake, Moffitt & Towne formally opened the doors of its new building. The event was scheduled during the annual Fiesta de Las Rosas, a civic pageant and celebration unique to this Garden City of Central California. A large number of visitors to San Jose were thus enabled to enjoy this colorful festival and to inspect the new Paper House declared by all to be a model in efficiency and construction.

The new building is located conveniently with a 108 foot frontage on North San Pedro street with spur track facilities at the side and to the rear. These spur tracks allow shipments to be loaded and unloaded without loss of time and inconvenience and expense of cartage. Efficiency in handling goods has been further assured by constructing a delivery platform so as to be on a level with the floor of the average freight car. Toward the front a loading arcade allows the company's fleet of motor trucks to load at a minimum of time and several may be accommodated at one time. Other features of equipment include automatic hoists, freight elevators and delivery chutes.

In addition to the main floor and basement a mezzanine adds still more floor space to this complete plant. Thus paper buyers are assured of ample stocks being on hand at all times.

Visitors to the House Opening were favored with an additional treat in the form of a comprehensive exhibit of printing and advertising which the company prepared and had on display at the recent Direct Mail Advertising Convention held in San Francisco.

Over 24,000 people attended this Exposition and the large exhibit of Blake, Moffitt & Towne attracted a great deal of attention both for the quality of work shown and for the ideas and suggestions contained in the attractive specimens displayed. This same exhibit in all of its complete detail was shipped to San Jose and shown in the company's office during the House Opening.

Arrangements for the opening were in charge of H. W. MacLean, San Jose manager for the company, and many of the executives from the Headquarters Division in San Francisco were on hand to greet the visitors which included not only printers and buyers of paper but a number of men prominent in the manufacturing end of the paper industry. Special visits through the new building were arranged for the Advertising Club members, and for pupils in the trade school of printing.

Located as it is in the heart of the Santa Clara Valley the San Jose Division specializes in papers used in the packaging of the many fruits which are grown in this section.

In addition to fruit papers, however, complete stocks of fine printing papers, including nationally advertised brands of bonds and writing papers, book papers, cover papers, ledgers, cardboards, and envelopes are carried, as well as wrapping papers, paper bags, paper boxes, and containers, twines, and cordage.

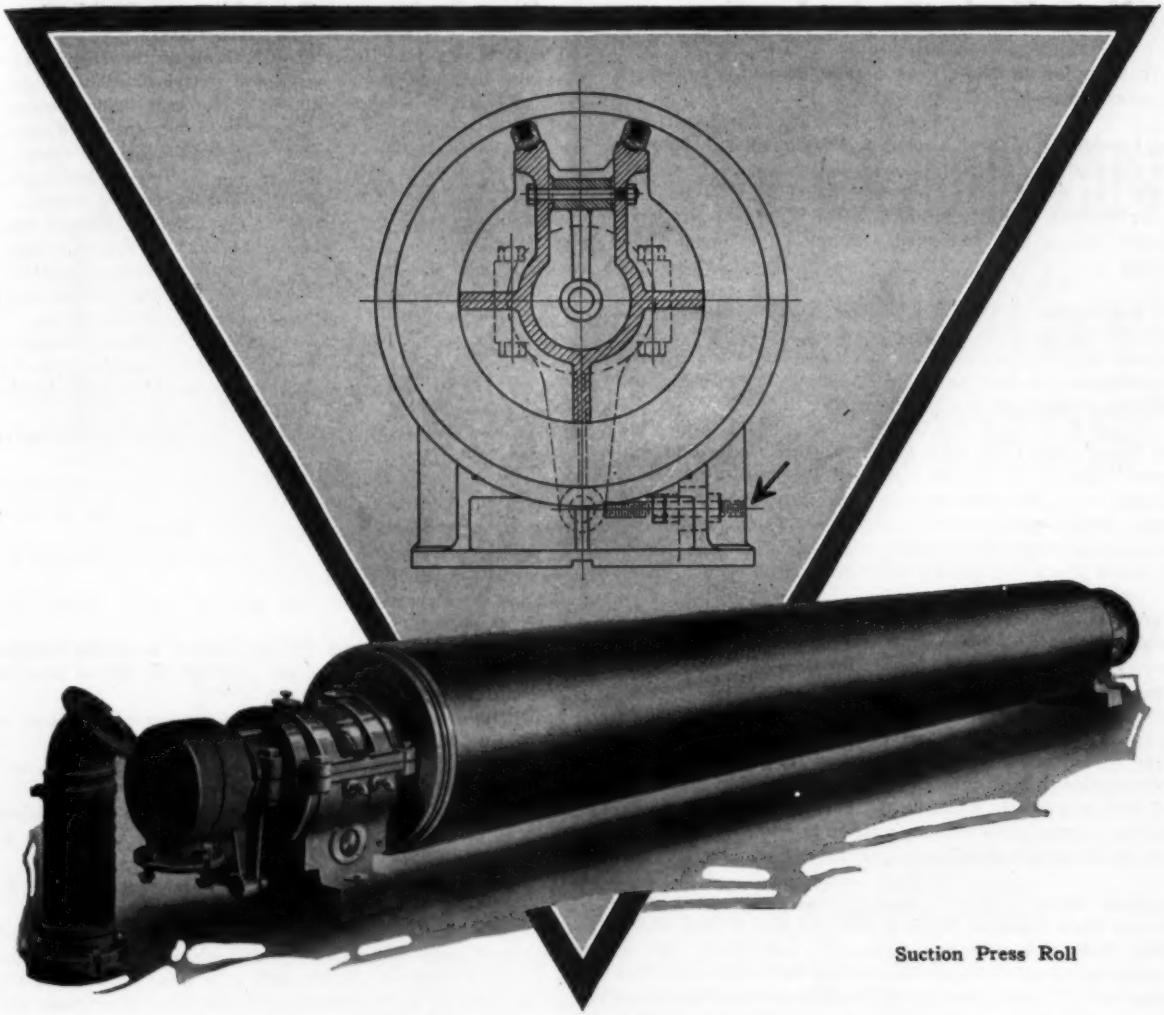
Blake, Moffitt & Towne is not only one of the largest wholesale concerns on the Pacific Coast, but is one of the oldest, having been established in San Francisco in 1855. From this pioneer beginning the firm grew and expanded, steadily establishing distributing centers at Los Angeles, Portland, and Tacoma. The last few years have been marked by especially rapid growth, culminating in the opening of the San Jose Building.

Headquarters of the company are located at the parent house in San Francisco, while in addition to San Jose, divisions are maintained at Oakland, San Diego, Sacramento, Fresno, San Luis Obispo, Santa Rosa, Salem, Oregon; Boise, Idaho; Phoenix, Arizona; and agencies at Stockton, Bakersfield, Watsonville, and San Anselmo.

I. P. Mill at Fort Edward on Four Day Schedule

[FROM OUR REGULAR CORRESPONDENT]

FORT EDWARD, N. Y., June 25, 1928.—Most of the manufacturing departments at the local plant of the International Paper Company this week went on a four day week schedule. The paper machines and other equipment were shut down at 7 a.m. Friday morning at the close of the third shift and will be started up Monday morning at the same time. The only department not affected by the change is the cutting room which will continue to work a full week. The four day week will be effective for an indefinite period. Lack of storage room and the inability of the cutting room to handle the output of the paper machines is said to be the reason for inauguration of the shorter week.



Suction Press Roll

Box Adjustable by 1 Man A Kilberry Development

ALL adjustments are made on the front side of the Kilberry Suction Roll and all can be made while machine is running. The angular position of the suction box can be changed by one man manipulating the nuts on the adjusting screw, indicated by arrow in diagram.

The Kilberry Suction Roll is driven direct from Couch or Press Drive, without gears,—an exclusive, patented feature. The Suction Box is concentric, easily removed and is carried in ball bearings within the steel journals.

Get the facts and compare values.

Our Products Meet Our Promises

DOWNINGTOWN Manufacturing Company Downingtown, Pa., U. S. A.

CAN. REP. FOR KILBERRY SUCTION ROLLS CHAS. WALMSLEY & CO. CANADA LTD. MONTREAL, QUE.

New York Trade Jottings

G. A. Ware, of the News Print Service Bureau, is enjoying a well earned vacation.

* * *

The Liquid Tight Paper Container Association is holding its annual convention at the Hotel Commodore this week.

* * *

W. N. Hurlbut, formerly president of the Canadian Newsprint Company, Ltd., is now connected with the International Paper Company.

* * *

The last regular meeting and luncheon for the season of the New York Division of the Salesmen's Association of the Paper Industry was held on Monday at the Canadian Club, when the various activities of the past year were reviewed. The meetings will probably be resumed on Monday, September 10.

* * *

The United States Treasury Department has decided to continue the embargo on certain laminated products composed of cloth, paper or similar materials. In these instructions, President Coolidge extends until March 4, 1929, the embargo against the above-named products when combined with an insoluble, infusible condensation product of phenols and formaldehyde.

* * *

In granting an import claim of the Philip Carey Manufacturing Company, the Customs Court finds that a miniature Fourdriner paper-making machine, imported solely for laboratory purposes, to determine the practicability of producing different and better qualities of paper than are manufactured on cylindrical machines, now operating in importer's plant and which miniature machines are incapable of producing paper in commercial sizes or quantities, is properly entitled to free entry under paragraph 1620 of the Tariff Act of 1922 as a model. Chief Justice Fischer writes the opinion in this case, reversing the collector's action in assessing duty at 30 per cent under paragraph 372.

* * *

The Hano Paper Corporation have just taken the seventh floor of the new Bush Terminal Building 23 at the foot of 39th street, Brooklyn, N. Y., right at the ferry, where they will convert some of their paper specialties. They are also moving their executive offices there but will still stock their regular brands of typewriter papers and other grades of bonds, onion skins, and manila in New York City warehouses and at the mills. The new offices are very conveniently located and an invitation is cordially extended to all their friends in the trade to visit them at their convenience. There are certain shipping and receiving advantages in this new layout that will reduce over-head and allow prompter shipment all of which will be direct benefit to their customers.

Takes Over Evergreen Nurseries at Lyon Mountain

[FROM OUR REGULAR CORRESPONDENT]

PLATTSBURG, N. Y., June 25, 1928.—H. R. Bristol has completed negotiations for taking over the large evergreen nurseries at Lyon Mountain owned by the Chatteauguay Iron and Ore Company. The nurseries are among the largest privately owned plants in the Adirondacks producing evergreen stock for transplanting. According to announcement of the deal Mr. Bristol has purchased outright all of the nursery stock and has taken a long lease of the nursery plants. Mr. Bristol has for twenty years been superintendent of woodlands for the company.

The Chateauguay Company began reforestation activities twenty years ago and yearly plantations have run to 3,000,000 trees requiring the service of approximately 400 men. The company owns 100,000 acres in Northern New York and practically the entire output of the nurseries has been used heretofore in the company's reforestation program.

Acquisition of the stock and plants by Mr. Bristol will be followed by a large commercial development of the business.

Diana Creditors to Get Additional Dividend

[FROM OUR REGULAR CORRESPONDENT]

UTICA, N. Y., June 18, 1928.—Creditors of the Diana Paper Company, bankrupt, of Harrisville, will receive an additional dividend of 25 per cent which with the ten per cent dividend already declared will bring the total payment to 35 per cent on all claims which have been allowed. This was revealed by the filing of the final accounting with John Conboy, refereee in bankruptcy, by Charles A. Phelps, attorney for Daniel B. Schuyler, trustee.

Without admitting any liability or responsibility either in himself or on behalf of any of the various banks but solely as a matter of compromise and to facilitate immediate payment of creditors and avoid expense and litigation Mark S. Wilder, former head of the company, will pay the trustee a sufficient sum to pay all creditors the extra 25 per cent dividend. Mr. Wilder also agrees to pay in addition a sum sufficient to make up the following amounts, it being understood that the trustee has on hand for the purpose of settling the estate $24,081.49.

Balance of commissions due Daniel B. Schuyler, trustee, not to exceed $540.

Balance of commissions due John Conboy as referee not to exceed $500. Extra compensation due Referee Conboy for additional time, office rent, stenographers, etc., $1,000.

Expenses of the trustee and his attorney and for the final accounting and distribution $300.

Charles A. Phelps, as attorney for the trustee, balance for services $2,500.

H. L. Hooker, as attorney for the Eastern Township Lumber Co. and the Howard Smith Paper Co., Ltd., in full of services and disbursements $2,500.

Benjamin Stolz, as attorney for the foregoing corporations, in full for services and disbursements $5,000.

Goodhue & Pendock, representing creditors for services and disbursements $2,946.85.

It has been agreed that Mr. Wilder will deposit a sum sufficient to pay 35 per cent upon the Brown Company's claim if it is allowed by the court.

The compromise offer of Mr. Wilder has been approved by creditors.

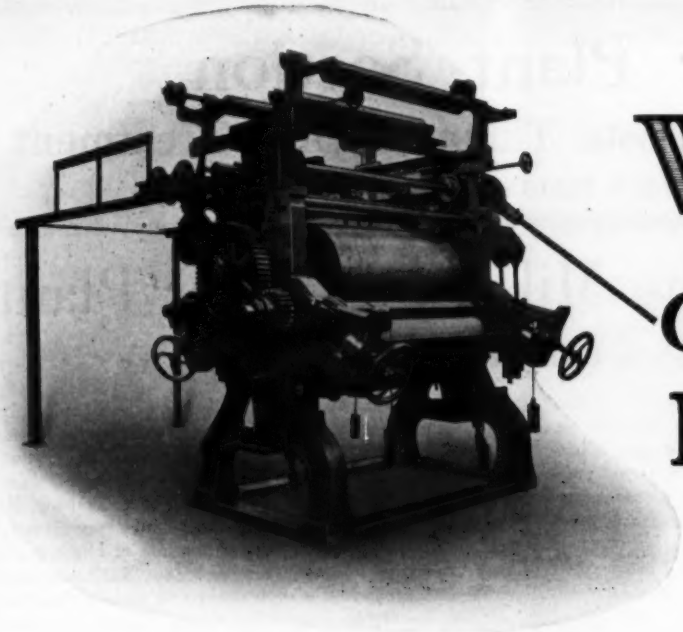
The Diana bankruptcy has been featured by many hearings and thousands of pages of testimony have been taken. Mr. Schuyler was appointed trustee in March, 1927, after being receiver for the concern. In May, 1927, creditors were directed to show cause why real estate and personal property of the bankrupt firm subject to first mortgage of $200,000, plus taxes, liens, and certain exceptions should not be sold to Edward S. Lansing for $45,000. A few weeks later order of sale was confirmed to Lansing reserving certain alleged claims against Mark S. Wilder and various banking institutions. In September a dividend of 10 per cent was declared on all approved claims and in December of last year an order was obtained for a meeting of creditors to consider suit by the trustee against Mark S. Wilder and others. A vote by creditors resulted against such action.

May Organize Carthage Pulp & Board Co.

[FROM OUR REGULAR CORRESPONDENT]

CARTHAGE, N. Y., June 25, 1928.—Reports current in Northern New York paper mill circles recently are to the effect that the St. Regis Paper Company had acquired through purchase the plant and business of the Carthage Pulp and Board Company of this village. No confirmation of the reports has come from St. Regis officials. James H. Quinn, general manager of the Carthage Company, when asked regarding the reported deal professed ignorance of the reports saying he had no knowledge of the sale of the business.

The Carthage Pulp and Board Company, whose plant is located at West Carthage, is one of the leading industrial plants in the vicinity of Carthage. The present concern succeeded the defunct Carthage Sulphite Pulp and Paper Company.



WALDRON *Intaglio* PRINTERS

Producing Multi-Tone Effects With Single Color Distribution

Decorative printing, one of the most important elements in the rapidly enlarging market for converted light weight papers, has two distinct phases—surface printing and intaglio printing.

The Waldron Intaglio printer reproduces the depressed pattern from an engraved or etched copper roll. By varying the depth of this depression it is possible to produce the most artistic multi-tone effects with a single color ink distribution. For many purposes the 3-color Intaglio printer illustrated is therefore equal to a 6-color raised surface printer in range of color effects obtainable.

The Waldron Intaglio printer, when used in tandem with Waldron Festoon Drying equipment insuring properly calculated evaporation of color solvents, proves an exceptionally efficient unit in the converting of special wall papers, box paper, linings and utility wraps. Investigate the advantages of Intaglio printing for your processing and production.

Our Engineering Department has prepared some very instructive bulletins and papers covering the important phases of converting light weight papers including Intaglio and Raised Surface Printing. Copies will be sent gladly upon request.

JOHN WALDRON CORPORATION

MAIN OFFICE AND WORKS - NEW BRUNSWICK, N. J.

208 W. Washington St.
CHICAGO

30 East 42nd Street
NEW YORK

303 Lumbermens Bldg.
PORTLAND, ORE.

Power Plant Section

Reducing Power Costs Through Unit Treatment

Conducted by REGINALD TRAUTSCHOLD, Consulting Engineer

Modernizing The Mill And Power Plant

Trends in Boiler Installations

The modern paper mill power plant is following closely in the steps of central station practice in boiler installation, not only in regard to the use of higher steam pressures and temperatures, but in the employment of heat reclaiming devices, such as air preheaters, water walls and water backs, and has given far more attention to such questions during the past few years than is generally appreciated. The use of superheaters and steam economizers has also become very much more common and greater efforts appear to have been expended to secure better heat balances and to operate at higher load factors.

The records set in the central station, i. e., public electric utility, field have not as yet been quite attained in the paper mill plant, perhaps, and the time may not come when such attainment is advisable, but it is extremely opportune for the pulp and paper industry that it has before it such examples, for to follow is invariably cheaper than to pioneer. In this case, furthermore, the importance of the leader in economical generation and utilization of steam, the central station, is so firmly established by virtue of the extent and the magnitude of the industry and its business that the essential equipment for consummating such attainments stand available to the paper making industry at a considerable saving to it in development time and incident investment.

Steam Pressure Practice

Economic pressure imposes the leadership in economical steam generation upon the central station, admittedly, and this fact can very well be capitalized upon by the paper mill power plant, and is by those under progressive management. Take the question of high pressure steam, for example. It is only a few years ago that the industrial world had its conception of high steam pressures shattered by a central station building a boiler plant generating steam at a pressure in excess of a thousand pounds per square inch. Only a few years later, a B. & W. boiler was installed in the plant of the Mason Fibre Company at Laurel, Miss., generating steam at 1,200 pounds pressure, such high pressure being now profitably utilized in certain process work.

A 1,200 pound steam pressure installation is very exceptional in a paper mill power plant, of course, just as such pressure is unusual in central station practice, but such an installation has been made and well exemplifies the present trend toward higher and higher steam pressures in key industries where steam costs carry great weight. Commenting upon the trend toward higher steam pressures in central station practice, the *National Electric Light Association* reported that while only a few years ago steam pressures of 300 pounds were considered not worthy, such pressures have now been reached in nearly all new installations and that they present no new problems to modern equipment in general The Westinghouse Electric and Manufacturing Company, in discussing the question, states that steam pressures of 300 to 400 pounds per square inch are considered well within the range of established practice.

Again, the paper mill power plant can hardly be said to have gone quite so far, but that it is not much behind is indicated by the orders placed for steam generators with boiler manufacturers. The Erie Iron Works, to name one of several which might be cited, has recently installed a couple of 311 horsepower boilers at the Union Waxed and Tissue Paper Company, Hamburg, N. J., with a working pressure of 200 pounds, two 404 horsepower boilers generating steam at similar pressure at Hinde and Dauche Paper Company, Toronto, Ont., and four 502 horsepower units operating at 250 pounds pressure at the St. Helens Pulp and Paper Company, St. Helens, Ore. The Large Bigelow Hornsby at the Fitchburg Paper Company, Fitchburg, Mass., is also operated at 250 pounds working steam pressure.

The use of such steam pressures, and higher, is particularly advantageous to the paper mill for the reason that very substantial economies can be effected in the utilization of exhaust steam for process requirements if the initial steam pressure is high. While this is apparently not usually appreciated, it should be quite obvious, for with low and moderate initial steam pressures relatively little of the steam pressure can be utilized for power generation and digester service if the back, or exhaust, steam pressure is at all high, or if considerable power is developed and much steam taken by the digesters the resulting low back pressure provides little steam heat for process work.

To illustrate the weight of this characteristic of high pressure steam in paper mill practice, an abstract from a report made some time ago by The Superheater Company of New York is pertinent. Quoting verbatim: "A paper mill uses four 500-horsepower boilers, of which three are usually in operation at 175 per cent. rating with a steam pressure of 150 pounds per square inch. Sixty per cent. of the steam from these boilers is reduced to 75 pounds per square inch and used in the plant for the treatment of the paper in the processes of manufacture and other uses. The other 40 per cent. of the steam is used to develop power, about 1,500 kilowatt being required. If boilers for 600 pounds per square inch pressure and 200 degrees superheat were installed, and the same amount of steam as is now being used in their process work was generated, about 1,900 kilowatt would be delivered in power by a turbine exhausting against a back pressure of 75 pounds per square inch. This steam could then be used in the process work and a considerable saving effected, as the 40 per cent. of the original amount of steam generated for power only would be no longer needed."

Predominance of Water Tube Boilers

The trend toward the generation of steam at higher pressures is also an influence which keeps the employment of water tube boilers to the fore, for such types are the most adaptable to high pressure service. Such boilers are also rapid steamers and there is little danger of their exploding, in spite of their distinctive overload capacity. For one make of water tube boilers, a record is claimed of continuous performance at ratings of from 500 to 600 per cent. for extended periods.

FOR BOND AND WRITING PAPERS

National Aniline & Chemical Company, Inc. carries a complete line of dyes suitable for coloring bond and writing papers.

The following are especially recommended.

National Quinoline Yellow P Conc.
National Erie Yellow S2GP Conc.
National Brilliant Paper Yellow C
National Croceine Scarlet FP Conc.
National Alizarine Sapphire BNP
National Niagara Sky Blue 6BP
National Fast Tinting Blue R and B
National Fast Acid Green BP
National Nigrosine 128 P and 2011

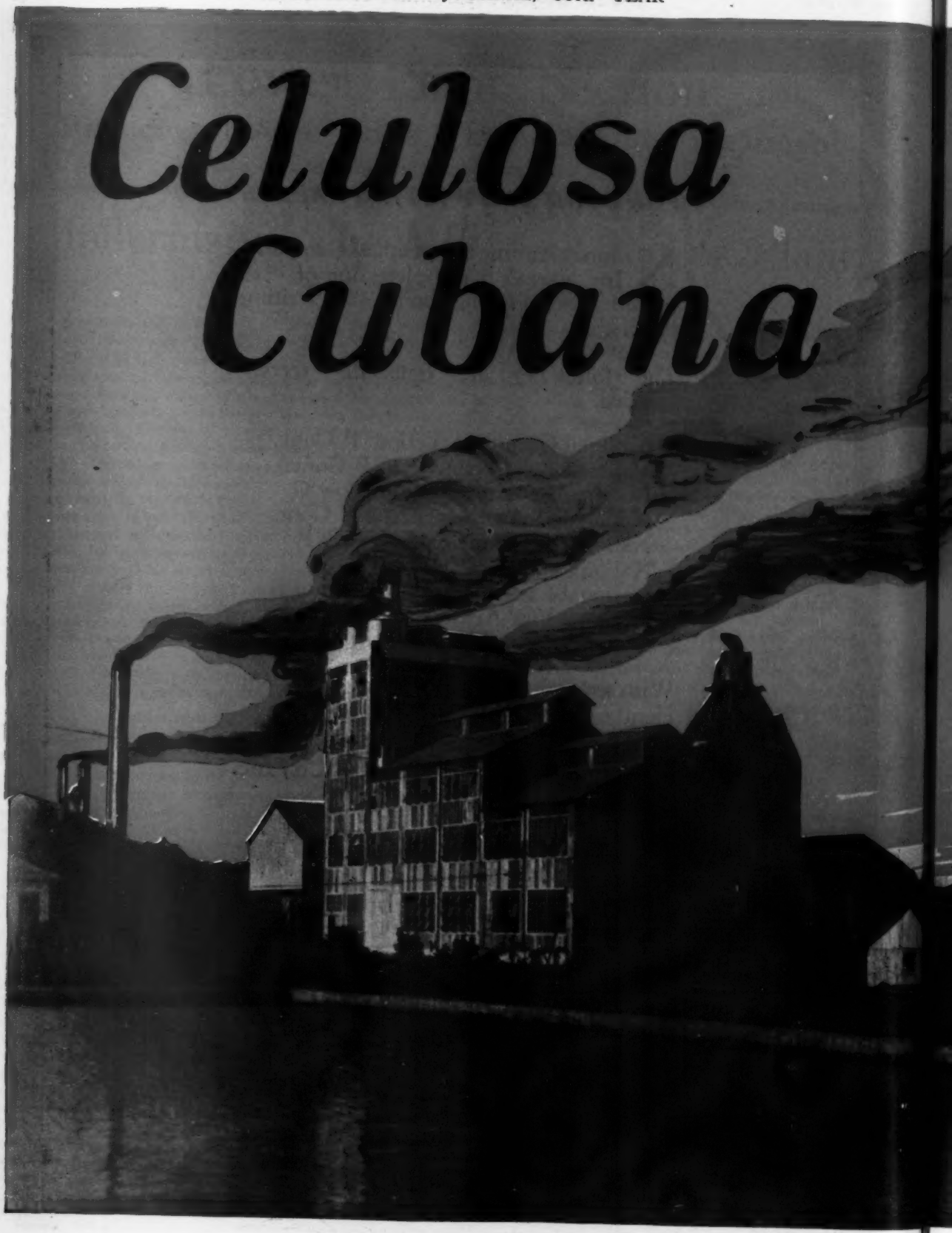
With these dyes the paper maker can efficiently produce all the prevailing shades.

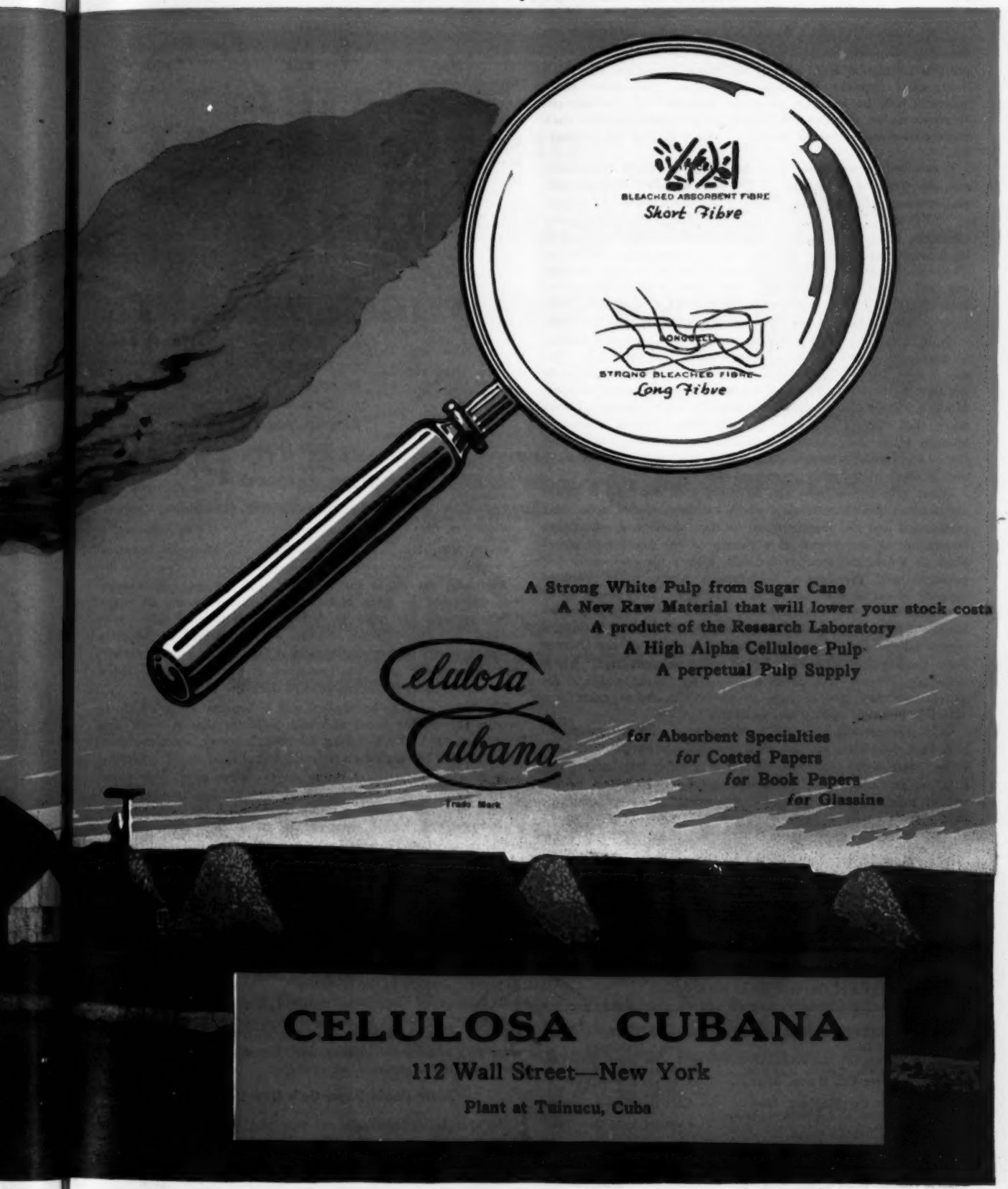
National Aniline & Chemical Co., Inc.
40 Rector Street, New York, N. Y.

BOSTON
PROVIDENCE
CHICAGO
CHARLOTTE
TORONTO
PHILADELPHIA
SAN FRANCISCO

NATIONAL DYES

NATIONAL N DYES


Celulosa
Cubana


BLEACHED ABSORBENT FIBRE
Short Fibre
STRONG BLEACHED FIBRE
Long Fibre
A Strong White Pulp from Sugar Cane
A New Raw Material that will lower your stock costs
A product of the Research Laboratory
A High Alpha Cellulose Pulp
A perpetual Pulp Supply
for Absorbent Specialties
for Coated Papers
for Book Papers
for Glassine
Celulosa Cubana
Trade Mark
CELULOSA CUBANA
112 Wall Street—New York
Plant at Tuinucu, Cuba

Other outstanding advantages of the water tube construction are the ready response of such boilers to changes in steam demand, positive circulation and, what is extremely important, the small floor space required for their installation. This latter characteristic will be brought out more pointedly in a subsequent reference to an effective remodeling of an existing boiler plant made economically feasible largely by virtue of this one peculiarity.

These boilers are now very generally of quite respectable size, the mean rated capacity of 250 units installed in paper mill power plants relatively recently being 384 horsepower, the largest of which was one of 1,828 horsepower rating at the plant of the Champion Fibre Company, Canton, N. C., and the smallest, four 75 horsepower boilers at the plant of the St. John Pulp and Paper Company, Mispec, N. B. These latter do not, of course, establish any limit for it is highly probable that many smaller units were installed. The former, however, is noteworthy as are other water tube boilers of 1,000 horsepower rating and over, though boilers with 10,000 square feet of heating surface in paper mill service no longer command the surprise they did a few years ago. Today, water tube boilers of such capacity and in some cases 25 to 30 per cent. more are in service at the River Raisin Paper Company, Monroe, Mich. (four units); International Paper Company, Livermore Fall, Me. (four units); Consolidated Paper Company, Monroe Mich. (one unit); Backus-Brooks Company, Westford, Ont. (four units); Brown Company, Berlin, N. H. (six units); and in other of the more prominent paper mills.

Water tube boilers, however, have not been universal in recent installations and the emphasis which has been placed upon their installation and the feature made of their distinctive advantages should not be interpreted as a closing of the paper mill power plant as a field for modern fire tube boilers for reasonably low pressures and for heating installations where boiler overload capacity is not an essential factor. The question of lower initial cost may also be a consideration. Among the more important installations of fire tube boilers, consequently, the four horizontal return tubular boilers being installed at the plant of the Oswego Falls Corporation at Fulton, N. Y., may be mentioned. These units are to be set for direct firing of pulverized coal and the satisfaction they give in such service will doubtless exert considerable influence upon practices in this line.

Chief interest will lie in the results secured with the pulverized coal fuel, naturally, and for this reason the accompanying table listing some of the more recent water tube boiler installations also fired on pulverized coal commands attention. However, as the use of pulverized fuel is as yet the exception rather than the rule, a second table is presented listing a few of the more recent stoker fired boiler installations.

New Boiler Plant of the Fitchburg Paper Co.

Among the installations of boilers fired on pulverized coal, considerable interest has centered around that at the Fitchburg Paper Company, Fitchburg, Mass., an example now of a highly efficient modern boiler plant which in its construction exemplified in a striking manner not only the value of modern boiler equipment and power plant practice, but the very marked difference between the old and the modern in plant design.

TABLE 1
SOME PULVERIZED COAL FIRED BOILERS

Location	Boiler Installation
Brown Co., Berlin, N. H.	1—1,936 hp. Heine Bent Tube
Champion Fibre Co., Canton, N. C.	1—1,828 hp. Heine Bent Tube
Consolidated Paper Co., Monroe, Mich.	1—1,183 hp. Erie 3-Drum 5— 557 hp. Erie V. W. T.
Fitchburg Paper Co., Fitchburg, Mass.	1—1,008 hp. Bigelow Hornsby
International Paper Co., Livermore Falls, Me.	4—1,020 hp. Ladd Bent Tube
Itasca Paper Co., Grand Rapids, Minn.	1— 728 hp. Erie V. W. T.
River Raisin Paper Co., Monroe, Mich.	4—1,296 hp. Erie 3-Drum
St. Regis Paper Co., Deferiet, N. Y.	4— 604 hp. Stirling
Spruce Falls Pulp & Paper Co., Kapuskasing, Ont.	4—1,035 hp. Kidwell
Taggart Oswego Paper & Bag Corp., Oswego, N. Y.	2— 513 hp. Kingsford W. T.

TABLE 2
SOME STOKER FIRED BOILERS

Location	Boiler	Stoker
American Coating Mills, Elkhart, Ind.	1— 394 hp. Stirling	Taylor Underfeed
American Paper Products Co., Carthage, Ind.	1— 300 hp. Erie V.W.T. 2— 557 hp. Erie V.W.T.	
Bathurst Co., Ltd., Bathurst, N. B.	4— B. & W.	Taylor Underfeed
Bemis Bros. Bag Co., Bemis, Tenn.	1— 750 hp. Stirling	B. & W. Chain Grate
Bemis Bros. Bag Co., Jackson, Tenn.	3— 469 hp. Stirling	B. & W. Chain Grate
Bogota Paper & Board Co., Bogota, N. J.	3— 516 hp. Heine	Cox Travel. Grate
Bryant Paper Co., Kalamazoo, Mich.	4— 778 hp.	Frederick Underfeed
Carthage Pulp & Board Co., Carthage, N. Y.	2— 276 hp. Erie V.W.T.	
Central Paper Co., Muskegon, Mich.	6— 318 hp. A. & T.	B. & W. Chain Grate
Dresden Paper Mills Co., Dresden, Ohio	3— 211 hp. Erie V.W.T.	
DeGrasse Paper Co., Canton, N. Y.	8— 337 hp. Heine	Single Retort Un.
Hammermill Paper Co., Erie, N. Y.	4— 509 hp. B. & W.	B. & W. Chain Grate
Hinde & Dauch Paper Co., Sandusky, Ohio	2— 256 hp. Stirling	B. & W. Chain Grate
Korean Paper Mfg. Co., Japan	2— 201 hp. B. & W.	B. & W. Chain Grate
Marathon Paper Mills Co., Rothschild, Wis.	1— 871 hp.	Taylor Underfeed
Marley Paper Mfg. Co., Childs, Md.	3— 336 hp. Erie V.W.T.	
Mengel Box Co., Baton Rouge, La.	1— 354 hp. Stirling	B. & W. Chain Grate
North Star Strawboard Mills, Quincy, Ill.	6— 502 hp. Stirling	B. & W. Chain Grate
Peerless Paper Box Mfg. Co., Cleveland, Ohio	6— 264 hp. A. & T.	B. & W. Chain Grate
St. Croix Paper Co., Woodland, Me.	2—1,057 hp.	Taylor Underfeed
Spaulding Fibre Co., Tonawanda, N. Y.	4— 308 hp. Heine	Frederick Underfeed
Wardlow-Thomas Paper Co., Middletown, Ohio	1— 300 hp.	Taylor Underfeed
Warren Co., S. D., Cumberland Mills, Me.	2— 600 hp. Heine	Frederick Underfeed

Formerly, the steam for the four mills of the establishment was generated in three boiler rooms containing, in all, seven 150-horsepower and nine 167-horsepower horizontal return tube boilers. The nine larger boilers were arranged in batteries of three boilers each and when it was found that a more modern and larger boiler plant was necessary, it was decided to rebuild such central boiler house and discard the other two.

The boiler room to be retained was so hemmed in by a railroad trestle, the turbine room and mill buildings that it could only expand upward. By elevating the roof, however, accommodation was provided for a modern pulverized coal fired steam generating unit of 1,000 horsepower rating on the same area, floor space, previously occupied by the battery of three 167-horsepower H.R.T. boilers, so it was decided to install three such units, one to replace each battery of three boilers in the central boiler room.

The first of the new units was put into service about a year ago and consists of a pulverized coal fired Bigelow Hornsby Boiler rated at 1,008 horsepower built for 250 pound steam working pressure. The boiler is equipped with a slag screen reaching from the top drums, some 33 feet above the boiler room floor, to a point on the back wall of the furnace, well below the center line of the pulverized coal burners, and radiant superheaters are installed in each furnace side wall to absorb sufficient of the radiant heat to prevent damage to the brick work. These superheaters provide 150 degrees of superheat and are important factors in the economical operation of a 200 foot stack which is to furnish all draft necessary for the new plant with its three large boilers, since they avoid a considerable draft loss which would be imposed were convection superheaters employed.

River Raisin Paper Co.'s New Boiler Plant

Another boiler installation of very pertinent interest is that of four 1,296-horsepower Erie three-drum bent tube boilers at the River Raisin Paper Company plant at Monroe, Mich., for despite the fluctuating steam demands inherent to paper mill operation they are delivering steam at a fuel cost of less than 2¼ pounds of

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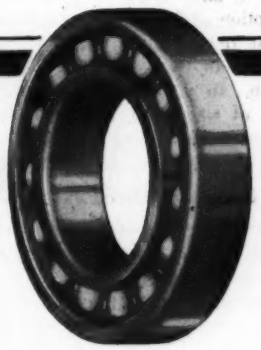

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coal per horsepower-hour. These four boilers, having an aggregate capacity rating of little over 5,000 horsepower, replaced twenty-four boilers, having a combined capacity of 6,590 horsepower, and are effecting very marked savings in fuel and are furnishing considerably more power, operating at the extremely high efficiency for boilers in paper mill service of 82 per cent., on the average.

Last year, three of the new boilers with a combined rating of 3,888 horsepower, one boiler operating on a 50 per cent. basis are reputed to have delivered 7,100 horsepower during a run on a consumption of 245 tons of coal. To produce 6,950 horsepower in the same time, the old boiler plant required 400 tons. That is, the new plant showed a net saving of 40 per cent. in coal consumption. In addition to this, the old plant had required the services of sixty men, laborously occupied, while the new plant, operating on pulverized coal, carries only seventeen men on its payroll.

Steam Regeneration and Resuperheating Steam

Many of the boilers to which reference has been made are equipped with superheaters of some description, for the practice of superheating the steam is making great headway among the more progressive mills. This is also in line with central station practice, in which it is found that increasing the superheat to the limit results in a larger return on the investment entailed than increasing the steam pressure. This is due to the fact that the gain in mechanical efficiency of the power units due to the lower friction of superheated vapor, as compared with the friction of saturated steam, overbalances the gain due to higher steam pressure. This fact is largely responsible for the practices of steam regeneration and or resuperheating the steam, or adding additional heat after the steam has only partially completed its passage through the power units, in central station practice, in which, despite its novelty in paper mill power plant practice, the forward looking paper mill operator is keenly interested.

True, the practices have nothing to do with actual efficiency in boiler operation, occurring at the power units rather than in the boiler room, still they are closely related and warrant brief mention here. This is particularly so for the reason that the benefits to be realized from such practices are important in determining the most economical steam pressure to employ.

The whole question of regeneration and adding heat to the steam is quite involved, but it can be well and briefly presented by excerpts from comments made to the *National Electric Light Association* by one of the prominent central station officials, G. G. Bell of the West Penn Power Company. He stated that with $3.00 coal and low load factor conditions the economical steam pressure is about 340 pounds, whether the plant is designed for the reheating or regenerative cycle; whereas for load factors as high as 80 per cent. the economical steam pressure increases to 410 pounds for the reheating cycle and to 440 pounds for the regenerative cycle, the feed water being heated to the temperature of the saturated steam by steam extracted from the main unit As the price of coal increases, the advantages of the higher steam pressure also increase. For $9.00 coal with 40 per cent load factor, 450 pounds is the economical pressure and for a load factor of 80 per cent. 500 pounds is the economical pressure for the reheating cycle. For the regenerative cycle, operated at 40 per cent. load factor, the economical pressure is 520 pounds. At 80 per cent. load factor, the costs are very nearly the same between 600 and 1,200 pounds.

Accumulator Economies

While these advocated steam pressures are as yet well in excess of those considered best for even the most modernly equipped of paper mill power plants, they are nevertheless very indicative of the trends in boiler installations among the progressive mills of the paper industry. Furthermore, attention is pointedly directed to those costly influences of low load factor conditions which more than anything else have prevented the paper mill attaining economies in power production comparable to those of the efficiently operated central station and of other industrial plants enjoying more uniform and constant steam demands. For this reason, a discussion on trends in boiler installations is not complete without some reference to the use of accumulators (steam) by which many of the paper mills are now effectively keeping the boiler load substantially uniform and the rate of firing constant.

This important boiler room adjunct, with the principles of which many paper mills have become quite familiar, is simply a large tank-like receptacle partially filled with water for the storage of the excess steam generated when the boilers are operated at a constant uniform rate conforming to the average aggregate mill load of the high and low pressure steam systems. With such device in service, during periods when the steam demand of the mill corresponds with the boiler output, the requisite amount of steam at boiler pressure passes to the power units and digesters, while the balance flows into the low pressure steam system without entering the accumulator. An increase in the demand for steam at boiler pressure, for power purpose of digester service, causes a larger proportion of the boiler output to go direct to the power units or digesters and less pass into the low pressure steam system. The deficiency in low pressure steam is then made up from the steam stored in the accumulator during periods when the aggregate steam demand of the mill is less than the boiler output and the excess generated, at boiler pressure, passes into the accumulator where it is held in reserve to meet deficiencies in the low pressure steam system when, for any reason, its make-up of steam at boiler pressure is inadequate.

Obviously, the fact the main boilers can thus be operated at a substantially constant and uniform rate, permitting the attainment of their highest efficiency, is extremely important, stabilizing the steam load, bolstering up the load factor of the plant, husbanding steam to the utmost and establishing effective heat balances. This explains how in a very brief period the accumulator has become recognized as important equipment in cutting production costs.

COST AND TECHNICAL MEN MEET

(*Continued from page 19*)

Michigan Paper Mills Traffic Association will, July 11, appear before the State Public Utilities Commission to enter protest against Michigan railroads for rates on sulphite from Munising to state points. The contention will be they are exhorbitant and unjust.

The River Raisin Paper Company, Monroe, has spent about $1,000,000 during the past 18 months in improvements and extensions to its plants. It has increased its production about 30 per cent. These facts were disclosed at a recent stockholders meeting. The concern produces about 450 tons of paper board daily and employs about 900 hands. The weekly payroll is placed at $35,000. Since 1910 the capitalization has grown from $125,000 to $5,080,000.

Long Lake, near Kalamazoo, was, Saturday, June 23, the scene of two big industrial picnics. Officials and employees of the Standard Paper Company, and their families, 800 all told, gathered at Summer Home Park, while a similar aggregation from the Sutherland Paper Company and American Signs Corporation (about 1,400) made merry at Ramona Park. There was the usual picnic program at both places with a big dinner.

Fatal Accident at Marinette

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 25, 1928.—A fatal accident took place last week at the Marinette and Menominee Paper Company, of Marinette, Wis. Fred Parthie, who was employed in the beater room of the Park Mill, suffered a blow on the back of his head such as to render him unconscious and later cause his death. He and another man had been putting up a belt, and the actual injury was not witnessed by any one. It was believed that he died of apoplexy, but a post mortem examination revealed a deep gash on the back of the head.

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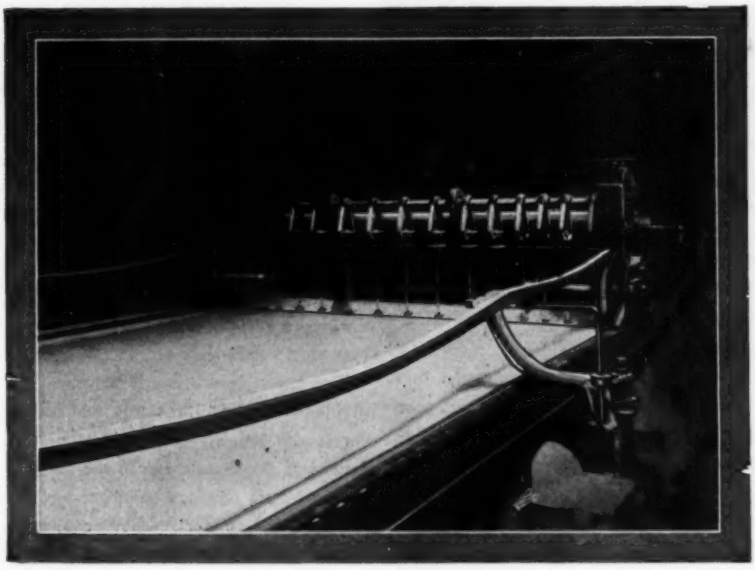

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PAPER EXPORTS INCREASE

April exports of paper and paper products were valued at $2,395,854 as compared with $2,351,118 for the same month of last year, while exports for the four months ending April this year were valued at $9,947,910 as compared with $9,169,757 for the same four months of last year, according to the Paper Division of the Department of Commerce.

During April book paper exports amounted to 1,453,468 pounds valued at $127,682 as compared with 1,118,746 pounds valued at $104,367 exported during April of last year. In April also 1,276,994 pounds of news print paper valued at $46,076 were exported as compared with 2,145,001 pounds valued at $100,853 during the same month of last year.

April exports of rags and other paper stocks for the month of April totaled 22,188,614 pounds valued at $559,017 as compared with 19,962,102 pounds valued at $340,316 for the same month of last year.

Wrapping paper exports for April amounted to 2,531,956 pounds valued at $175,630 as compared with 2,714,238 pounds valued at $206,133 exported in April of last year. Writing paper exports for April amounted to 1,912,253 pounds valued at $259,064 as compared with 922,833 pounds valued at $136,676 in the same month of last year.

Surface coated paper exports for April totaled 651,247 pounds valued at $70,189 as compared with 329,913 pounds valued at $47,413 exported during April of last year.

During the month of April also the United States imported $12,118,411 worth of paper and manufactures as compared with $11,317,487 imported during the same month of last year. And for the four months' period ending April this year the value of the imports was $50,602,730 as compared with $45,931,575 during the same four months' period of last year.

Of this amount standard news print imported totaled 326,357,207 pounds valued at $10,725,442 for April of this year as compared with 295,270,778 pounds valued at $9,803,160 for April of last year.

Imports of paper base stocks in April were valued at $6,556,894 as compared with $7,220,707 for April of last year. The figures of the Department show further that in April 51,439 tons of sulphite wood pulp were imported valued at $3,071,572 as compared with 54,992 tons valued at $3,712,343 imported in the same month of last year. Also in April 20,317 tons of sulphate wood pulp were imported valued at $1,138,794 as compared with 17,851 tons valued at $1,129,790 imported in April of last year.

Cigarette paper imported during the month of April totaled 952,588 pounds valued at $260,440 as compared with 1,160,601 pounds valued at $323,271 imported during the same month of last year.

FORESTRY IN WISCONSIN

Under this title there has just appeared an attractive, well-printed and illustrated, cloth-bound volume of nearly 200 pages, which is the official report of the Commercial Forestry Conference held at Milwaukee March 28-29, 1928, under the auspices of the Chamber of Commerce of the United States.

The Conference was well attended by timberland owners, paper and lumber manufacturers, owners of wood-working industries, representatives of various departments of the State and of the United States Forest Service, all of whom made concrete and helpful statements as to forest conditions in Wisconsin and the various measures required to keep Wisconsin timberland permanently productive.

The report is excellently arranged for reading reference, being divided into logical chapters which present the general land and forest situation in Wisconsin; direct statements as to what the forests of the State mean to the public, the wood-using industries, hydro-electric power, recreation and other interests; the various factors which render feasible or otherwise the permanent growing of timber on privately owned land; careful discussions of the forest fire problem and the necessary part to be taken therein by the public in cooperation with the land owners; the bearing of various methods of forest utilization upon profitable timber production; and the application of the new forest tax law to different types of timber operations.

An appendix reproduces the present Wisconsin forestry laws, and the whole report is of such character as to make it a valuable addition to the library of everyone who is concerned with problems of forest production and utilization. It can be obtained postpaid for $1.00 per copy upon application to the Secretary of the Conference, H. L. Ashworth, 49 East Wells street, Milwaukee, Wis.

ROSIN CHIPS USABLE FOR PAPER

Extracted wood chips which are the by-product of the rosin industry in the South will give medium-grade pulps suitable for the production of composition boards and the cheaper grades of kraft or wrapping papers, but are unfit for the production of strong first-quality papers. This is the conclusion reached by the Forest Products Laboratory of the Forest Service, United States Department of Agriculture, as the result of a series of experiments on these chips.

The experiments, which were made at the request of a concern interested in the disposal of a large excess of waste chips from extraction operations, demonstrated also that the pulp yields from the extracted chips were somewhat lower than the yields from untreated chips.

Among the particular conclusions developed by the laboratory's experiments are: That the rosin extraction process destroys certain wood components which appear to influence pulp quality; that the strength qualities of the extracted wood pulps are inferior

to pulps from unextracted wood; and that the quality and yield of the extracted wood pulps can be improved by pulping mixtures of green and extracted wood.

"The experiment shows," the laboratory report states, "that the pulp from chips extracted by the methods now employed is limited in its use to the lower grades of wrapping paper or to mixed pulp boards of the container type. It is possible, also, that this pulp may be adaptable for use in certain types of paper or composition board specialties, or in numerous paper products in which the use of high quality kraft pulp is not necessary, but a pulp of medium strength is required."

Hear Evidence on 9-Point Straw

Prominent paper manufacturers were witnesses Wednesday, June 20, in the United States Customs Court at New York in the case involving an effort of importers to overthrow a Treasury Department ruling that 9-point straw for use in the manufacture of corrugated board is dutiable as paper at 30 per cent, and not as board at 10 per cent as claimed by the importers.

The importers' side of the case was presented in May, and the Government closed its case at the June hearing.

The Government's witnesses testified that straw paper such as is used in the manufacture of corrugated board is a development of the old butchers straw wrapping paper, and that it is commonly known as paper.

Among the witnesses were J. P. Brunt, of Chicago, vice president of the Container Corporation of America; Sidney Frohman, of Sandusky, Ohio, president of the Hinde & Dauch Paper Company; W. W. Galloway, of Cedarville, Ohio, general manager of the Hagar Strawboard and Paper Company; N. H. Carpenter of Coshocton, Ohio, general manager of the Coshocton Straw Paper Company, and Sidney Mitchell of New York, president of the United Paperboard Company.

The testimony went into great detail as to manufacture and sales practices. The case was regarded by the Government as so important that Charles D. Lawrence, Assistant Attorney General of the United States in charge of Customs participated in the presentation of the Government's case. Peter A. Abeles of the Attorney General's office was in charge for the Government.

The Import Committee of the American Paper Industry played an important part in the case, begininng with the successful efforts to convince the Treasury Department that the old practice of calling this commodity board was incorrect. After this ruling became effective the importers endeavored to overthrow the ruling by the court action now concluded.

The Import Committee was responsible for securing the Government's witnesses, and assistance was rendered the Government in the preparation and trial of the case by Carl E. Whitney of its counsel, John R. Hecht, Customs Expert, and Warren B. Bullock, manager.

Cellophane Prices Reduced

A new scale of prices on Cellophane has just been announced by the Du Pont Cellophane Company, Inc., of New York, effective June 1.

It is interesting to know that this is the fifth reduction in the price of Cellophane since the du Pont organization started its manufacture in 1924. At that time the cost of Cellopane was 127 per cent higher than it is today.

From its original use in the United States as a wrap for candy boxes, it has spread rapidly into over thirty different industries, among which are meats, baked goods, dried fruits, toilet articles, notions and textiles, cigars, fish and noodles.

Officials of the company, in commenting on the change, point out that the continued increasing use of Cellophane in present fields, and the expected adoption of it in new and widening fields, will justify the new lower price.

Union Bag to Build at Vancouver, Wash.

PORTLAND, Ore., June 22, 1928.—W. B. Du Bois of the Columbia River Paper Mills, located at Vancouver, Wash., announced June 20 that decision had been made by the Union Bag and Paper Company of New York, to construct a plant at Vancouver to cost approximately $200,000.

It is the plan of the company to make this the sole headquarters for paper bag manufacture on the Pacific Coast, with plans to permit of future expansion when justified. The present building will contain 34,000 square feet of floor space. It will be a modern mill in every feature, and contracts will be let shortly, with the stipulation that the building will be ready for manufacturing operations by December 1, 1928.

The company will employ between 75 and 100 workers, about half of whom will be women. Changes at the plant of the Columbia River Paper Mills to accommodate the proposed new quarters of the bag company will entail an expenditure of probably $150,000, it is stated.

Among the changes to be made will be the addition of a 2,500-kilowatt turbine generator to furnish about half of the electricity required, while foundations are already being prepared for two more 600-horsepower boilers. More beating machinery will also be ordered to take care of the increased production, as the Columbia River Paper Mills are under contract to furnish paper required by the Union Bag and Paper Company for the next ten years.

While this is the extent of the expansion of the paper mill at present, still enough space has been reserved between the paper mill and the bag plant to permit a duplication of present facilities, which would then entail an investment of $1,000,000.

The bag plant to be started now will be a one-story structure, probably of brick, steel and glass, and will be located north of the paper mill and fronting on Sixth street, occupying most of the paper mill property at that location. The bag factory will turn out all sorts of paper bags, not only the common manila variety, but also the glassine type such as are used for candies, confections and similar purposes.

Do Not Favor Five Day Week

ALBANY, N. Y., June 18, 1928.—The movement inaugurated by the International Brotherhood of Papermakers for a five day week in the news print mills of the United States and Canada appears to be getting a frigid reception from the manufacturers. The conference called for last week in Washington, D. C., to which all of the news print manufacturers were invited found the union officials on the ground but no manufacturers, according to latest authentic reports.

The Washington conference was to have been the first move by the unions for a shorter week in the news print mills. After sizing up the situation President Smith, of the Brotherhood, and the other union officials decided upon another conference at a later date. No definite date, however, has been fixed and the matter of a five day week for news print workers appears to be just where it started. According to officials of the brotherhood, some of the news print manufacturers who were at first inclined towards the idea of a five day week became hesitant at the last moment.

The need of a shorter week in the news print mills is not admitted by manufacturers who doubt the wisdom of trying to limit production, maintain prices, by reducing working hours.

Willapa Plant to Start Soon

PORTLAND, Ore., June 25, 1928.—According to recent report construction will begin on the new plant for the Willapa Pulp and Paper Company near Raymond, Washington, some time late in June or early in July. The Puget Sound Bridge and Dredge Company is ready to start work now, and a large part of the machinery has already been contracted for, it is stated.

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Edited by
RONALD G. MACDONALD, Secretary

Modern Engineering Answers the Call for Lower Costs in News Print*

By A. E. Buchanan, Jr.[1]

Practical! That is pre-eminently the word which characterizes the new mill of the Ste. Anne Paper Company, Ltd., at Beaupré, Quebec. Designed and built specifically to operate profitably during the period of close competition in the news print industry, this plant is a model of skillful design and sound engineering against a background of long, practical paper-making experience. An inspection of the mill recalls the conception of engineering as "making a dollar yield its utmost," for dollars were obviously lavished or saved with one end consistently in view—lowest production cost consistent with quality.

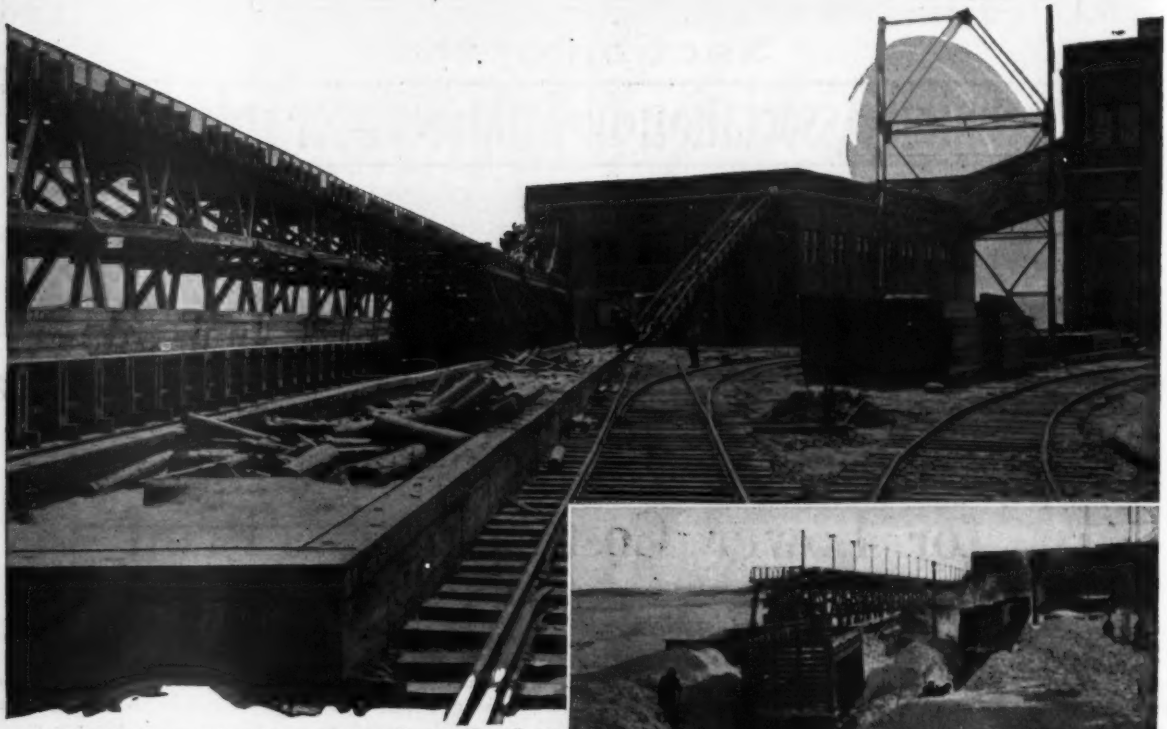
Sequestered in the beautiful, rugged valley where the Ste. Anne joins the St. Lawrence River, twenty-five miles below the city of Quebec, the Ste. Anne mill is a unit in one of the great Canadian news print companies, formed recently by the consolidation of the Abitibi Power and Paper Company and the Spanish River Paper Company interests. The resources of this parent concern are said to total $180,000,000 and its productive capacity is close to 1,000,000 tons of news print per year. The two machines of the Ste. Anne mill are producing 240 tons per day at present, at a speed of 950 feet per minute. Since the machines are designed for speed up to 1,400 feet, their ultimate capacity should be well over 300 tons of paper per day.

Pulpwood in 4-ft. lengths is floated from the company's timber limits, down the Ste. Anne River to a dam, about 1¼ miles from the mill, where it is stacked, to be delivered to the mill by rail in specially designed cars. A stack of some 800 cords of blocks is kept close to the wood room and adjacent to the log pond, into which the cars discharge. This "pond" is a long concrete trough 7 ft. deep, filled with water which is kept flowing toward the wood room by a large circulating pump. The blocks thus float to the end of the pond on to a log haul, 120 ft. long, which carries them up an incline to the wood room.

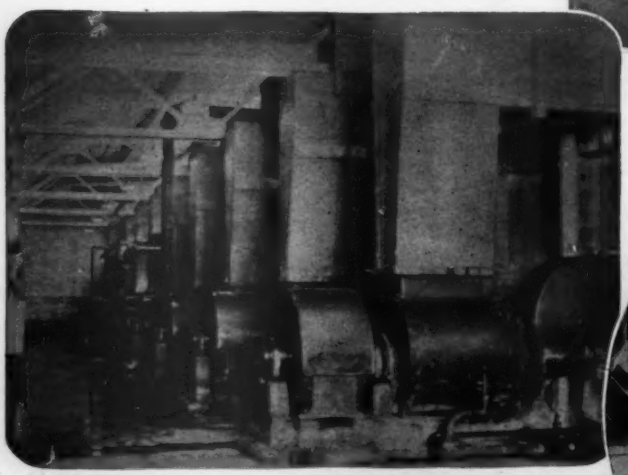
In this building, connected with the mill only by the conveyor bridge, the blocks are prepared for both the mechanical and chemical pulping processes. Dropping into the rotating steel

PLANT OF THE STE. ANNE PAPER CO.

* Chemical & Metallurgical Engineering, May, 1928.
[1] Associate Member TAPPI; Asst. Editor Chemical & Metallurgical Engineering.



LOG POND AND WOOD ROOM. INSERT SHOWS THE SAME VIEW IN QUEBEC WINTER



LEFT—
BATTERY OF
BIRD SCREENS

IN CIRCLE—AMERICAN FILTERS THICKENING GROUNDWOOD AND SULPHITE PULP

LEFT—FINISHING ROOM AND OFFICES

drum, 12 ft. in diameter and 45 ft. long, the blocks are tumbled under heavy water sprays to remove bark and to wash them, after which they are discharged to the sorting conveyor which is 120 ft. long and comprises 9 parallel chains. Those destined to become groundwood pulp proceed unmolested over the bridge to the block bins above the grinders; those for the sulphite mill are switched off and fall into the 84-in. Waterous chipper. Belt driven from a 100-hp. motor, this machine converts 8 to 10 cords of logs per hour into chips about the size of a half-dollar. A second chipper was being installed at the time of the writer's visit (March 30, 1928). A belt conveyor under the chippers conducts the chips to a bucket elevator which feeds a double screen, inclined and shaken by a motor and eccentric, wherein the oversize chips and sawdust are removed. The former are conveyed to a rechipper, returned to the screen and thus eventually join the good chips which are elevated to the bridge to board the long belt conveyor for the chip bins above the digesters in the sulphite mill.

Chips and blocks thus travel on their respective conveyors up the 240 ft. bridge to the top of the main mill building, where the former turn left on a transverse belt to the sulphite mill, and the latter go off to the right and are distributed to the block bins in the groundwood mill. The block bins are constructed of heavy timber sides, the bottom being the charging floor above the grinders, so that blocks discharged from the bins can be tumbled directly into the grinder magazine as shown in Fig. 1. Charging doors are hinged and counterweighted and the steam formed by the heat generated in grinding which rises, fragrant with resins, from the stone, is drawn off from the upper part of the magazines. This room, like the grinder room proper, is ventilated by a large fan and long air ducts, visible in the photograph. It is light and airy as all the rest of the mill and thus presents a pleasant contrast to the misty atmosphere common to some older groundwood mills.

Ten grinders, driven in pairs by 2,600-hp. motors reduce from 180 to 200 cords of blocks per day to mechanical pulp. The stones used measure 67 in. in diameter and 54 in. wide. Blocks are fed down to the stones from the magazines by means of a sturdy caterpillar-like belt which moves slowly down the inside walls of the magazines, gripping the blocks and forcing them against the stones. Fig. 2 shows these belts, two on each side of the magazine, the exposed portion being, of course, the return or "up" side of the feeder caterpillars. The photograph also shows the housing over the gears driving these belts, and mounted above it the little motor which, thanks to the very high reduction ratio, is sufficient to drive the caterpillars, although their movement is hardly perceptible. This type of grinder is made by the Continuous Wood Grinder Company, Ltd., of Montreal.

Of peculiar and somewhat flattering interest to the chemical engineer is the fact that two of the grinders were equipped with synthetic grindstones, carborendum having been adopted to replace the natural sandstone so long standard. These stones are built up of interlocking carborundum slabs, permanently mounted on a steel drum core. Their resistance to wear is considerably greater than that of the natural stones and their satisfactory performance at this mill is indicated by the fact that the two additional grinders now being erected are to be equipped with these Norton stones.

Pulp from the grinders is flushed down a trough under the machines leading to the bull screens. These rotating cylinders of perforated metal pass everything except the large slivers of unground wood which are retained and discharged to the sewer. The pulp is pumped to a battery of Bird screens located just below the American filters in the mixing department. Here again, the pulp suspension flows into the center of a rapidly rotating cylindrical screen, the long fibers being retained and the good pulp passed to the filter chests. Six such centrifugal screens handle the output of the grinders, one of them operating on the tailings from the other five. The Bird screens, being equipped with vanes, act also as centrifugal pumps, throwing the screened pulp up the flumes, to the American filters, located on the floor above. There are four of these continuous vacuum filters thickening the groundwood pulp to a cake of about 10 per cent consistency, i.e., 90 per cent water. Each filter unit comprises 10 disks, covered with 60-mesh wire and operated at 15 to 17 in. vacuum. The matted cake is stripped from the screens by rotating rubber scrapers and drops to the groundwood stock chest, a concrete tank measuring 67 by 30 ft. and 16 ft. deep, with a capacity of 32 tons of 3 per cent pulp suspension.

Returning to the sulphite mill, it will be recalled that the chips from the wood room are dumped in bins above the digesters, each bin holding about 35 cords of chips. A hopper runs on rails below the bins for charging. There are two digesters, 16 ft. in diameter and 54 ft. high, with ample space for a third when needed. They are built of riveted steel sections lined with acid-proof tile and are housed in a high, well-lighted brick-walled room, completely visible and accessible. As a safety measure, the digester steam lines are equipped with blow-off valves discharging outside the building. Recording instruments in the digester operating room register the temperature and steam pressure throughout the cook and periodical samples of cooking acid are tested.

FIG. 1
Grinder charging floor showing bottoms of block bins and charging doors.

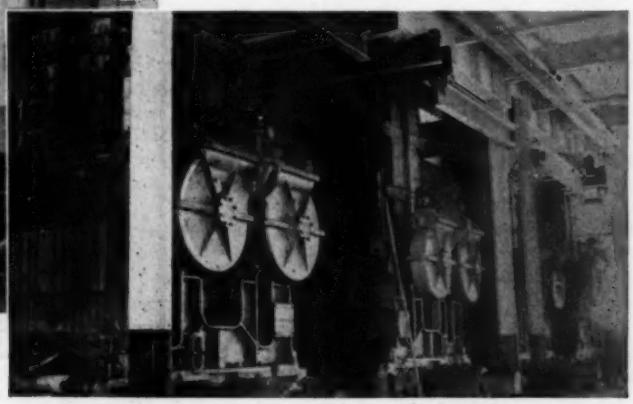


FIG. 2
Continuous type magazine grinders.

Two rotary sulphur burners, located on the same level as the digester charging floor and adjacent to it, burn 7 to 8 tons of sulphur per day (at present production of 240 tons of news print). Preheating hoppers straddle the burners using the heat of combustion to melt the feed sulphur. Steel combustion chambers are set behind the burners, in the usual manner, the sulphur dioxide being drawn through them down to the Jenssen gas coolers, consisting of heavy lead pipes in the form of vertical U-bends set in a shallow concrete tank, and cooled by water. The cooled gas is drawn down through fans, and blown into the two concrete acid towers at their bottoms. Acid is drained off at the base and run through a concrete settling tank, thence to the acid storage tanks, outside the mill. A freight elevator runs between the sulphite tower for elevating buggies of sulphur and limestone.

After a cook is completed, the digester is discharged under steam pressure to the blow pits. There are three "pits," which are actually wooden tanks, 30 ft. in diameter and 23 ft. deep covered and equipped with vents out of which the steam discharges through the roof. A perforated false bottom permits the sulphite liquor to drain to the sewer, after which the pulp is washed, by playing over it a heavy stream of water from a high pressure hose. In order to insure complete blending of different cooks, an "equalizing chest" is placed adjacent to the blow pit. This concrete tank measures 65½x12x15 ft. and is equipped with agitators to keep the pulp in suspension and well mixed. From this chest, the stock flows to three Bird screens in the mixing department, two of the three being fed direct and the third fed with tailings from the other two. Screened stock is thrown up to the 10-disk American filter, thickened to a consistency of about 5 per cent, the matted pulp being dropped to the sulphite stock chest which holds about 15 tons of 3 per cent suspension. The consistency of this pulp, as also of the

FIG. 3
Wet end driving motors.

groundwood pulp is automatically controlled by the ingenious Trimbey consistency regulator, which controls the water supply so as to keep the finished pulp thinned to the desired consistency. Automatic, also, is the mixing operation, whereby another Trimbey machine, the metering and proportioning apparatus, mixes the correct amount of sulphite and groundwood pulps for supplying the paper machines.

Before the mixed pulp goes on the machines, it is screened again by a battery of three Bird screens at the wet end of each machine. These centrifugal screens discharge to the pond of the machines, where the stock is thinned by "white-water" and flows through an orifice, 234 inches wide, on to the fourdrinier wire. The particular design of orifice used is known as the Van de Carr slice, the invention of C. R. Van de Carr, manager of the Ste. Anne mill. Fig. 5 shows the wet end of one of the machines; the pond with the water spray pipes across it at the left; the 60-mesh wire screen running over the table rolls at speeds up to 1,400 ft. per minute; the deckle straps at the two edges of the wire which move with it and prevent the pulp from flowing off the edges of the wire before it drains and forms a sheet; the suction couch roll and the three sets of press rolls, the first two of which also apply suction to the sheet. At the right may be seen the drying rolls, covered by the hood from which the warm moist air is carried off.

Synchronizing the speeds of the drying rolls with the other

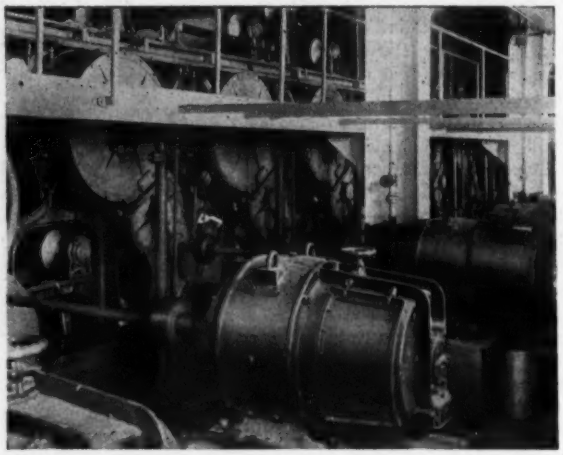


FIG. 4
Drier roll drive showing gear connection between upper and lower rolls.

sections of the paper machine is one of the most important details of paper machine design, since a slight variation in speed produces tension on the sheet and breaks the paper. The Ste. Anne system of drier drive is somewhat uunique and apparently quite satisfactory. There are forty-six steam heated drying rolls, 60 inches in diameter, over which the paper is carried by broad felt belts. An endless rope runs through the rolls at one edge, by means of which the paper is threaded when starting, or after a break. In order that the upper and lower drier felts may run at exactly the same speed, the rolls are geared together as shown in Fig. 4, two rolls being thus driven by one 18-hp. motor. These 23 motors draw their current from the same 550-volt line, so that the speed of all varies the same amount in case of line fluctuations. The drier roll motor at the wet end is connected to the motors driving the wet-end rolls, and the last drier roll motor is connected to those driving the calenders and reels at the dry end. This connection is made by means of the Harland interlocking sectional drive system, wherein a variation in the speed of the connected motors immediately cause a compensating movement of a rheostat regulating the field current and consequently the speed.

Passing from the drying rolls, the paper goes through the calenders and is wound on the reels. A crane lifts reels over to the winders where the sheet is slit to desired size. The finished rolls are wrapped and weighed in the spacious finishing room which adjoins the machine room, and delivered by a de-elevator to the shipping platform below. Paper is being shipped by rail at present, although water shipment is entirely feasible.

At the time of the writer's visit, the integrating watt-meters showed the total power consumption of the plant to be 311,200 kw.-hr. per day. Power is purchased from the Duke-Price hydro-electric development at Ile Maligne, on Lake St. John, and delivered over a hundred miles to the mill substation at 66,000 volts. There it is stepped down to 2,200 v. for the grinder motors and 550 v. for all other applications through the mill.

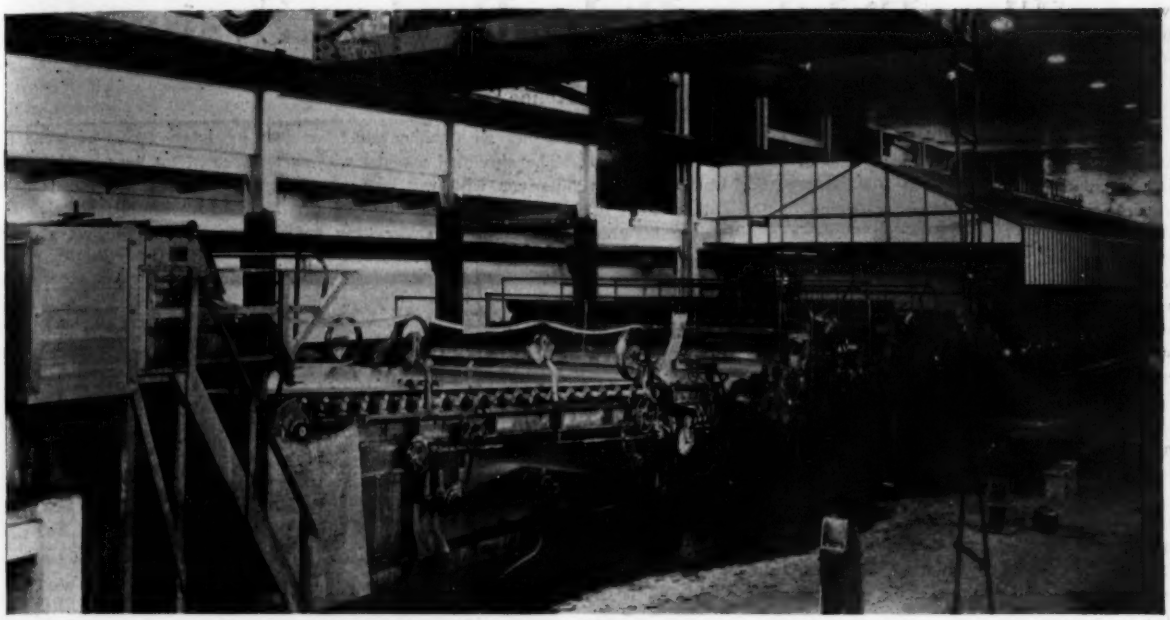


FIG. 5

Wet end of paper machine at Ste. Anne Paper Company, Ltd.

An electric boiler of 100,000 kw.-hr. per day capacity is used as an auxiliary source of process steam, since the purchased power is contracted for with a specified minimum consumption. The main steam plant consists of three 820-hp. Kidwell boilers, burning pulverized Nova Scotia coal and operating at about 250 per cent of rating. Coal is delivered from the cars by an automatically operated hoist to an elevated bin, weighed by automatic Richardson scales and delivered to the pulverizers, one for each boiler. The steam is expanded in two turbines, each of which drives a 650-kw. d.c. generator and a 900-kw. a.c. generator, the latter arranged to be operated as a synchronous motor if desired. These turbo-generators are operated so as to supply the amount of exhaust steam required by the driers, the current produced being used to drive the paper machines.

A well-equipped laboratory, in charge of a competent chemist, is one of the useful auxiliary departments of the mill. Among the determinations regularly made are hourly measurements of freeness of groundwood stock, consistency of accepted stock from Bird screens, moisture in paper, acidity of raw and cooking acid, SO_2 in gas to sulphite towers; strength test and basis weight determination for every reel; dirt sheet inspection of every sulphite cook; coal analyses and daily strength tests of groundwood and sulphite stocks.

For the pleasant privilege of inspecting this beautiful mill the writer is indebted to R. O. Sternberger, assistant manager and to R. C. Mode, chief chemist, who furnished some of the photographs here reproduced.

Fox River Paper Company Joins TAPPI

The Fox River Paper Company of Appleton, Wisconsin, manufacturers of bonds, ledgers, manuscript cover, onion skin and mimeograph bonds has recently become a corporate member of the Technical Asociation of the Pulp and Paper Industry. The representive of the Company in TAPPI will be John Stevens, Jr., Treasurer. The rated capacity of the mills of the Fox River Paper Company is 101,000 pounds daily. The Company has long been known to be deeply interested in technical development and in the preparation of papers of very high quality.

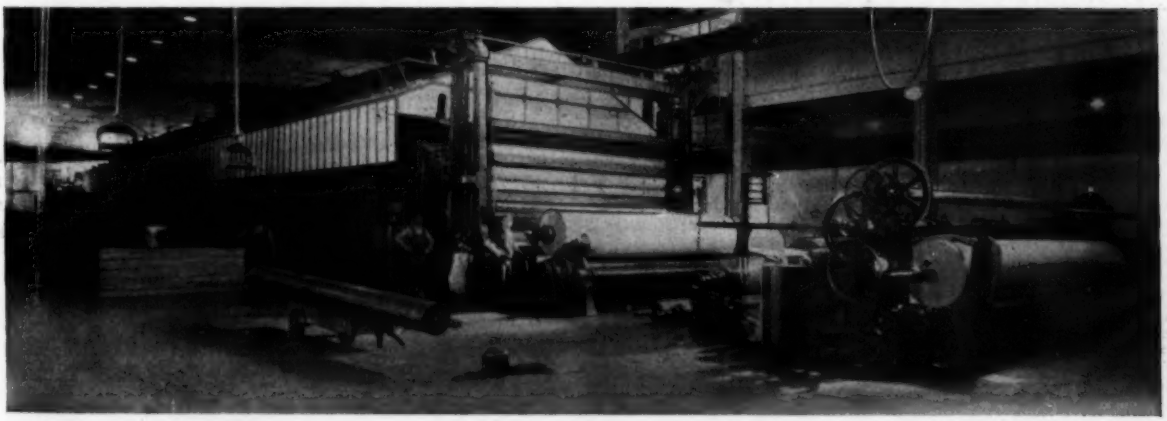


FIG. 6

Dry end of paper machine at Ste. Anne Paper Company, Ltd.

The Fidalgo Pulp Drying System

By R. D. Kehoe [1]

Every pulp and paper mill engineer that I have interviewed on the subject has agreed that the method of indirectly drying pulp with circulation of hot air at low temperature was correct in principle as compared with direct drying on the hot surfaces of a cylinder drying machine. That there is a difference between the wet lap and cylinder dried pulp is obvious and admitted both as to test and freeness. Various estimates of the difference were made, but in order to obtain absolutely correct information numerous tests had to be made on a commercial scale, that is, in lots of 500 to 1,000 pounds. Various kinds of pulp were tested wet and dry, with result as shown in following curves.

Pulps were shipped by various mills to Bogalusa, La., where a drier was in operation, run through shredder and drier and wet and dry moisture and beating tests made by the laboratory there. Dried shredded pulp was baled and sent back to shipper.

Chart No. 102 is the result of test on a high grade sulphate made in eastern Canada. It will be noted that at maximum beating strength there is only a drop from the wet—177.6 to 174.3—although the pulp was over dried to 109 per cent air dry. Further tests are being made at this time to demonstrate the freeness of stock at various stages of drying as compared with freeness of wet and cylinder dried. The drop from 177.6 to 174.3 is approximately the same as for loft dried pulp.

Now from the papermaker's viewpoint, I am aware that in the making of paper the pulp is very seldom beaten to the point of maximum strength but it will be noted from the curves that the rates of difference is about the same up to one hundred minutes. Further tests under way, which will be the subject of a later article, will give the comparison with cylinder dried pulp in sheets which will, of course, be considerably below the Fidalgo dried.

The Chart No. 101 shows the result of commercial test on a

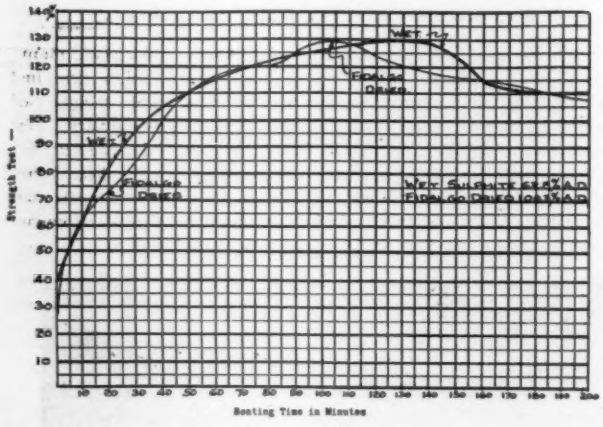


CHART 101

Comparative Strength Tests of Sulphite Pulp when Beating Wet and Fidalgo Dried.

pulp made in eastern Canada and in the same mill the cylinder dried pulp drops off in test approximately 15 per cent.

The Chart No. 103 shows result of commercial test on bleached sulphite made in a Southern mill. The color at 90 per cent air dry was excellent and the result much better than cylinder dried pulp.

Groundwood pulp, according to curve shown, was only tested to 80 per cent dryness as it was not considered practical to go higher with this product for fear of deterioration of wood fiber. The shredded product was soft and beat up very easily in comparison with wet laps. By wrapping the bales in sheets of wet pulp after air drying and shredding, there is no doubt that many thousands of dollars can be saved in freight and yet give good

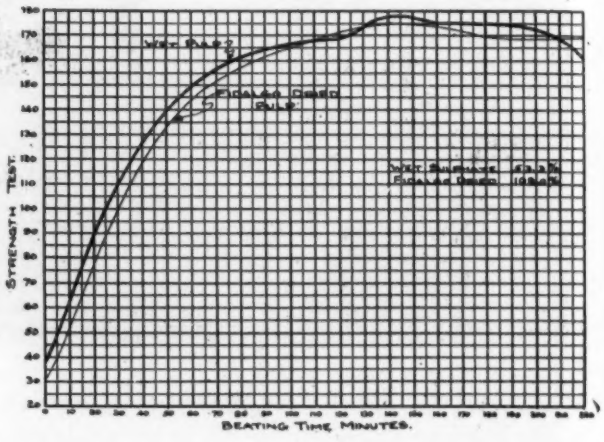


CHART 102

Comparative Strength Tests of Sulphate Pulp when Beating Wet and Fidalgo Dried.

results to board and paper maker. It will store well for a reasonable length of time, without possibility of freezing.

The matter of test not being important, the Fidalgo dried prod-

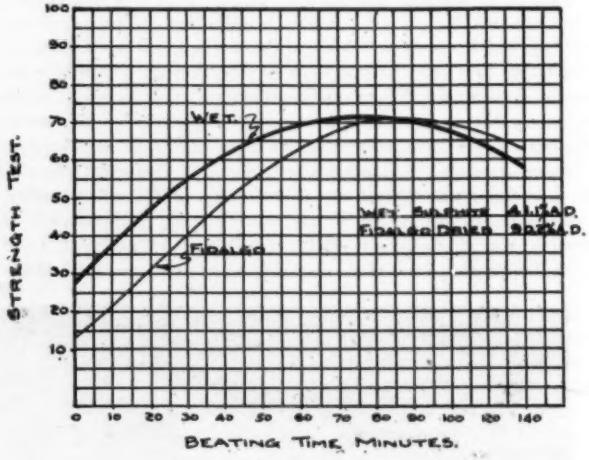


CHART 103

Comparative Strength Tests of Bleached Sulphite Pulp when Beating Wet and Fidalgo Dried.

uct is being tested for freeness and for bulk in sheet. Data on this will be given in later article. To make it clear to those who have not inspected the plants where Fidalgo pulp drying system is now in operation, would explain that this patented system is a combination of five distinct operations, i.e., 1—thickening; 2—dewatering; 3—shredding; 4—drying; 5—baling.

Thickening and Dewatering

The first operation is in most cases combined with the second and for uniform results there is used in later installations, con-

[1] Technical Economist Corporation, New York, N. Y.

sistency regulator to offset any irregularities in screen room, etc. In other words the dewatering device is fed with a stock of uniform consistency.

The second operation, dewatering, is effected by means of single or double press wet machines or with a feltless type of wet machine such as the "Kamyr." The Kamyr press furnishes pulp 55 to 60 per cent dry to the shredder in sheet form. This type of press is being installed by the Union Bag and Paper Power Corporation at Tacoma (daily capacity 160 tons) and by the Shaffer Box Company of Tacoma (capacity 50 tons daily). The cost of fuel not being considered an important factor the greatest advantage claimed by the use of this type of wet press is in the cost of felts. Figures obtained from various users of wet presses show that felt costs on double press wet machines (when second press is used to greatest advantage) indicate a saving from 40 to 80 cents per ton of dry pulp.

The other dewatering devices that the writer is experimenting with are for the purpose of eliminating a high felt cost and at the same time eliminating the necessity of shredding. These

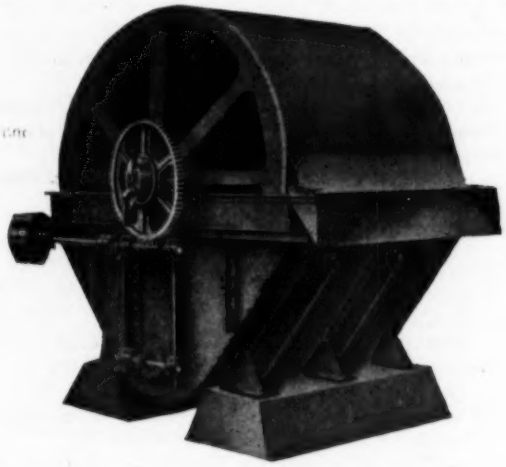


FIG. 1
Oliver Type Filter.

devices separate the stock from the light liquor in "fiber form" and, if commercial tests now being made demonstrate that the mechanical equipment is durable and will deliver uniform results, it is quite possible that in the near future we will be able to dry and bale pulp in "fiber form." Obviously this means saving in cost of shredding and drying and a great advantage to the paper or board mills who buy the pulp, as the dried pulp will closely resemble a bale of cotton or cotton linter pulp.

Continuous Type Centrifuge and Screw Press

One device for this purpose is a continuous type of centrifuge which delivers a fiber stock 35 to 50 per cent dry to the drier. Another is a continuous screw press which delivers pulp about the same degree of dryness.

New Drier Designs

For the drying unit itself, because of the comparatively large tonnage necessary in pulp drying, many improvements have been made on new installations. In the Union Bag and Power Company installation the moisture content of dried pulp will be automatically regulated. Each machine will have a capacity of 80 to 100 tons daily. The insulation is of greater thickness and there are innumerable other features in design that manufacturing experience has found to be advantageous over older designs. The new installation for the Shaffer Box Company, Tacoma, Wash., is a 50 ton single unit in combination with Kamyr press and embodies all the latest improvements. The new installation for San Juan Pulp Manufacturing Company, Bellingham, Wash., includes a later type drying unit without automatic control, but adheres to previous double wet press combination with its high felt cost and expensive dryer installation. This statement is based on the fact that the Kamyr wet press removes considerably more moisture from the pulp then the double wet press and it naturally follows that drier size itself and the building space is greatly reduced.

FIG. 2
Wrapped Bale for Domestic Shipment.

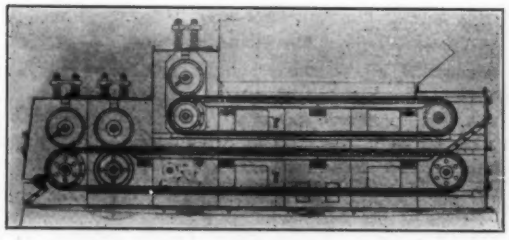


FIG. 3
Roller Type Press.

It is the writer's opinion that the manufacturers who have utilized the Fidalgo drying system have not devoted enough thought to the sales value of this method of drying and its advantages over cylinder dried pulp. When consideration is given

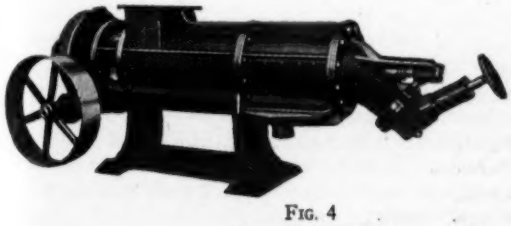


FIG. 4
Screw Type Press.

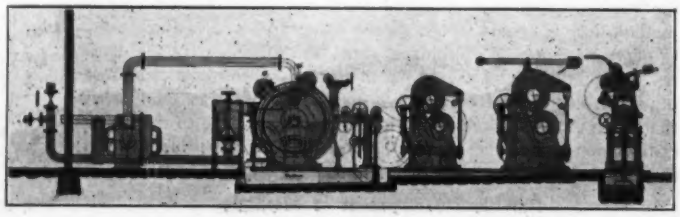


FIG. 5
Kamyr Press.

to the fact that its strength factors are almost equivalent to wet pulp and its beating time less than wet pulp, although supplied in air dry condition it is apparent that it has a decided advantage over pulp dried on a cylinder drier which loses from 10 to 30 per cent of its strength. Of course, this system will not add to quality or "test" of the pulp but if quality and test are the same before drying the manufacturer who uses the Fidalgo system has a decided advantage over the manufacturer who dries his pulp on a cylinder machine.

The last stage of the operation, namely, baling, is still being improved upon. Due to the light, fluffy nature of the material the problem is similar to the pressing and baling of raw wool stock which has been a problem for years for the press manufacturers so far as a single stage operation is concerned. For example: to make a bale of 250 to 300 pounds of standard dimensions there would be required a box or cylinder 12 to 14 feet high to hold this weight before compression. This means that either by horizontal or vertical arrangement twice this measurement has to be arranged for to accommodate piston travel as well as hopper arrangements for feed. Many machines equipped with automatic feed under pressure or tamping devices have been designed and tried out, but it is the almost unanimous opinion of the press manufacturers today that for this operation there has not been a press designed yet to do this work in a single operation that does not present too high a cost and too complicated an operation. While experiments will be continued the manufacturers up until this time will only recommend the two stage method such as will be installed in the new plants in Tacoma. Efforts have been made to standardize the domestic and export bale with a view of obtaining the cooperation of railroad and steamship lines in rate reduction. Very little progress has been made along these lines as each manufacturer has his own ideas on the subject.

Paper Testing Committee Meets

A meeting of the Paper Testing Committee of the Technical Association of the Pulp and Paper Industry was held at the Bureau of Standards, Washington, D. C., June 14, 1928, for the purpose of planning the further work on development of official Association paper testing methods.

Business Session

A business session was held from 9:45 A. M., to 1:15 P. M., B. W. Scribner, Chairman, presiding.

The following attended the meeting: E. A. Bergholtz, American Telephone & Telegraph Company; E. G. Ham, John A. Manning Paper Company; Miss H. U. Kiely, American Writing Paper Company; R. G. Macdonald, Secretary, TAPPI; E. O. Reed, Government Printing Office; B. W. Scribner, Bureau of Standards; R. H. Simmons, Government Printing Office; P. F. Wehmer, Electrical Testing Laboratories.

Several members of the paper section of the Bureau of Standards were present in an advisory capacity.

Miscellaneous

A number of miscellaneous matters relating to the work of the committee were discussed with the following results.

It was decided that a system of classification and numbering of the official methods would be formulated for the purpose of facilitating reference to them.

Separate copies of official methods, in mimeographed form, will be furnished by the Association to anyone desiring them.

In respect to the publication *Paper Testing Methods* the chairman will keep a permanent file of corrections or additions for use when a new edition is made. Consideration is to be given to publication in loose-leaf form so that it may readily be kept up to date.

It was decided to hold an annual meeting of the committee on the first day of the Annual association meeting.

Proposed Methods for Gloss and Opacity

The tabulation of the vote of the Association members on adoption of the proposed methods for gloss and opacity shows that they have been adopted almost unanimously. The committee considered the various suggestions received from members. In the opacity method, it was agreed to change the manner of expressing results to percentage instead of contrast ratio, and to so specify the manner of calibration and use of the instrument as to make clear that other forms of photometers are acceptable. It was considered that these changes would without doubt be acceptable to the Association members as they do not involve the essential principles and therefore that a re-vote would not be necessary.

Further Development of Methods

The following methods were chosen for immediate development work in sub-committees:

1. Aherence of Mineral Coating (Chairman to be appointed). Further work on development of a more satisfactory testing medium than sealing wax.
2. Ink Resistance of Printing Papers. (E. O. Reed, Chairman). Further standardization of the method tentatively proposed.
3. Microscopical (C. E. Libby, Chairman)
   Cooperative tests of dot method by different laboratories.
4. Resistance to Liquids. (Allen Abrams, Chairman)
   (a) Degree of internal sizing.
   Curl method—Dry-indicator method.
   (b) Water resistance of waterproofed paper
   Ground glass method.
   (c) Grease resistance
   Method developed by former sub-committee.
5. Chemical Methods (Miss H. U. Kiely, Chairman)
   (a) Qualitative determination of formaldehyde
   (b) Revision of method for quantitative determination of paraffin to include separation from resin
   (c) Revision of method for quantitative determination of starch to include use of Benedict's solution.
   (d) Acidity
   (e) Sodium silicate, quantitative and qualitative.

Methods Ready for Committee Action

It was agreed that sufficient data are available on methods for determining bulk, absorbency of bibulous papers, and ink absorbency of blotting papers, so that additional investigation of them is not necessary. They are to be prepared in standard form together with substantiating data and forwarded to members of the committee and others interested, for their consideration.

The following methods were listed as being desirable for future consideration. The committee will appreciate receiving, in the meantime, any information on theim, that may become available.

1. Microscopical
   (a) Weight factors for fibers
   (b) Differentation of bleached soda, sulphite and sulphate fibers.
2. Physical
   (a) Air resistance
   (b) Expansion
   (c) Wet rub
   (d) Erasure test
   (e) Stiffness
   (f) Surface texture
   (g) Conducting particles
   (h) Color
   (i) Fading
   (j) Hardness
3. Chemical
   (a) Copper number
   (b) Alpha cellulose

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts and Bibliography of the Technical Association of the Pulp and Paper Industry

Clarence J. West, Chairman

Lignin

Study of the Lignin of Pine Wood. Erik Hägglund and T Rosenqvist. Biochem. Z. 179, 376-383 (1926); Chem. Abs. 21, 2014 (1927). The distillation of lignin hydrochloride with 12 per cent hydrochloric acid produces a volatile substance resembling but not identical with furfural, methyl-furfural or hydroxymethyl-furfural, the yield of which is about 3 per cent of the weight of lignin (calculated as furfural). For this reason the usual methods for determining pentosan in lignin-containing substances yield too high results. From alkali lignin small quantities of volatile substances are likewise obtained by distillation with hydrochloric acid, which form condensation products with phloroglucinol, and furfural is definitely found. Lignin sulphate which is precipitated from beta-naphthylamine gives no volatile products which condense with phloroglucinol upon treatment with hydrochloric acid. Neither pine wood nor the lignin from this wood contains any methylpentosan. On sublimation the lignin yields but very small quantities of vanillic acid or vanillin.—A. P.-C.

Raw Materials

Investigations on the Utilization of Some Moroccan Woods. G. Dupont and M. Soum. Bull, Inst. Pin No. 33, 41-44 (Feb. 15, 1927). Atlas cedar wood (*Cedrus atlantica*) contained, on the dry basis: total cellulose 55.6 per cent, alpha-cellulose 40.9 per cent, beta- and gamma-celluloses 14.7 per cent, lignin 27.10 per cent. Cooking the wood with 30 per cent caustic soda (on the dry weight of the wood) at a concentration of 6 per cent at a maximum pressure (reached in 1.5 hours) of 7 to 8 kilos which was maintained for 5 hours and then reduced to 4 kilos in 1 hour, yielded 48.7 per cent (on the dry wood) of very good, easy-bleaching pulp. The fibers were 2.9-4.5 mm. long and 0.015 to 0.030 mm. in diameter. On relieving steam for the final 2 hours of cooking and passing through a condenser, 4.75 per cent (on the dry wood) of cedar oil was obtained, which is a much higher yield than the one (2.2 per cent) obtained by steam distillation of cedar sawdust. Destructive distillation of Atlas cedar wood gives tar and a very light charcoal. The oil obtained (in about 70 per cent yield) on redistillation of the tar to 300 degrees in presence of carbon dioxide is suitable, after dephenolation, for the same uses as oil of cade, and the residue from distillation can be used for agglomerating the charcoal. Pulping tests with *thuya wood* (*Callitris quadrivalvis*) showed it be unsuitable for this purpose. Its suitability for destructive distillation has been studied by Massy. *Eucalyptus wood* (*Eucalyptus globulus*) from Portugal contained, on the dry basis: ash 0.29 per cent, pentosans 4.37 per cent, methylpentosans 2.57 per cent, lignin 12.66 per cent, alpha-cellulose 50.01 per cent, beta-cellulose 5.83 per cent, gamma-cellulose 26.18 per cent, total cellulose 82.02 per cent. Satisfactory pulping conditions were found to be 20 per cent of caustic soda (on the dry weight of the wood) at a concentration of 4 per cent 1.5 hours to 175 degrees C. and 6 hours at 175 degrees C., which gave 48.5 per cent of easy-bleaching pulp which was readily de fibered. This wood is suitable for the manufacturer of groundwood.—A. P.-C.

Rags Versus Wood Pulp. E. Arnould. Industrie Papeterie 7, 9-13 (Jan. 1928). A discussion of the suitability of different grades of wood pulp for various grades of rag stock.—A. P.-C.

Rags and Their Preparation for Paper Making. R. H. Clapperton. Paper Maker and Brit. Paper Trade J. 75, 138-143 (Feb. 1, 1928); World's Paper Trade Rev. 89, 354-358, 412-416 (Feb. 3, 1928). A discussion of the grading of rags and of their boiling, washing and bleaching.—A. P.-C.

Bamboos From British Guiana for Paper Making. Anon. Bull Imp. Inst. 25, 370-374 (1927) Tests carried out on samples of *Guadua angustifolia* from British Guiana showed it to compare favorably as a paper making material with Indian *Bambusa tulda* and with the Kenya bamboo, *Arundinaria alpina*.—A. P.-C.

Pulping Flax Straw. III. Hydrolysis and Delignification with Sodium Hydroxide and with a Mixture of Sodium Hydroxide and Sodium Sulphite. Mark W. Bray and Clifford E. Peterson. Pulp and Paper 26, 37-41 (Jan. 12, 1928); Paper Trade J. 86, No. 3, 48-50 (Jan. 19, 1928). A study of the pulping actions of sodium sulphite (results of which are not yet published), of sodium hydroxide, and a mixture of sodium hydroxide and sodium sulphide under the same cooking conditions brought out the following facts: (1) the relative severity and reaction speed of the three processes in terms of yield increase in the order in which the pulping chemicals have been named. (2) When small amounts of lignin are removed, for a given degree of delignification less cellulose is destroyed with sodium sulphate than with either of the more alkaline chemicals. (3) The hydroxide sulphide mixture removes more lignin, while destroying only a little more cellulose, than does straight sodium hydroxide digestion under the same conditions of pulping.—A. P.-C.

Pulping Flax Straw. IV. Further Studies on Hydrolysis and Delignification with Alkaline Reagents. Earl R. Schafer and Clifford E. Peterson. Paper Trade J. 86, No. 3, 51-54 (Jan. 19, 1928). A study of the progress of the reactions taking place during a digestion of flax straw with mixtures of sodium hydroxide and sodium sulphide has shown the solution of the lignin to be much slower than the solution of those portions of the material called "other than lignin." The weight of chlorine required to render soluble the lignin in the crude pulp was found to be nearly equal to that of the lignin, for six different types of digestions. The yield of chlorinated residue obtained by the modified Roe method was observed to bear a definite relation to the yield of the crude pulp from which it was isolated. Between the limits of 70 per cent and 40 per cent in the yield of crude pulp, the average loss in cellulose was 1 per cent for each 3 per cent loss in pulp. The solution of the straw during a digestion with a mixture of sodium hydroxide and sodium sulphite appears to be due principally to an alkaline hydrolysis, whereas during a digestion with sulphite alone such solution, particularly that of the lignin constituent, seems to be caused largely by a reaction with the bisulphite radical. The solubility of lignin in a solution of sodium sulphite was found to be lowered by a preliminary mild hydrolysis with a solution of sodium hydroxide. The experimental cast-steel autoclaves used for the cooking are described.—A. P.-C.

Industrial Researches on the Production of Pure Cellulose: Qualitative Aspects of the Industrial Problem of Cellulose. Umberto Pomilio. Chemistry and Industry 47, 85-91 (Jan. 27, 1928). A discussion of the problem of the commercial production of pure cellulose, particularly from abundant raw materials such as straws or grasses and bringing out the higher degree of purity of pulp produced from esparto by Pomilio's chlorine gas process as compared with the usual soda process used in England. Esparto pulp now being produced by the Pomilio process very

nearly meets the exacting requirements of pulp for rayon manufacture, and work is being carried out to further improve the quality and make it suitable for that purpose.—A. P.-C.

Natural Reproduction of Pulp Wood. George N. Ostrander. Paper Ind. 9, 1536a-1536c (Dec. 1927); Paper Mill 50, No. 49, 20-24 (Dec. 3, 1927). A brief outline of the more important results obtained by the Finch, Pruyn Co., Glens Falls, N. Y., in the course of their forest management experience, which, the author considers, proves that the preference for natural reproduction over plantation reforestation is a wise one from the standpoint of ensuring a permanent supply of pulp wood.—A. P.-C.

Deinking Waste Paper. L. Grenaudier. Eng. pat. 279,516. The dry or wet waste paper is reduced to small pieces, then boiled in a 0.1 per cent soap solution with constant stirring and skimming, the boiling being continued until the scum has become nearly white. The material is then rinsed with ordinary water, pulped in a beater and then boiled in a solution of weak alkali, preferably 0.1 per cent soda ash, hot water being added during the boiling to dilute the solution at the end of this boiling operation to 1 part in 1500, with stirring and skimming, the operation being continued till the scum is white. The product is finally rinsed with water. The beating may bed one before the first boiling, and, for the production of pasteboard or colored paper, the boiling with soap solution may be omitted.—A. P.-C.

Sulphite Process

Digestion of Scotch Pine by the Sulphite Process. I. Erik Hagglund. Paper Trade J. 85-, No. 21, 41-44 (Nov. 24, 1927). Scotch pine wood from young trees without heatwood, or sapwood from older trees may be digested by the sulphite process, especially when using a cooking liquor with high combined sulphur dioxide. The resulting pulp, however, contains a considerable amount of resin and is not uniform. It is questionable whether this method has any practical value. Pine heart wood cannot be cooked by the sulphite process, as it gives a very non-homogeneous pulp mixed with only very slightly digested shives with high resin content. The resin may be extracted with benzene or ether. If the solvent is more or less firmly held by the wood, as is the case with heartwood, the wood cannot be uniformly digested by the sulphite process. Much more undigested wood splinters are found in the pulp from extracted than from unextracted wood. This is not caused by a drying of the cell membranes, because if the solvent is removed by a watermiscible solvent, such as acetone or alcohol, the wood can be cooked by sulphide acid to a white, uniform and completely digested pulp. The hardness and strength of the pulp from extracted wood agree fairly well with those from unextracted wood, except that the pulp from extracted wood is somewhat more "brittle," but not sufficiently to prevent the use of the pulp. Artificial drying in no way affects the digestion of pine wood by the sulphite process, and the strength properties of the resulting pulp are scarcely changed. Here also the subsequent extraction of the benzene with acetone accelerates the digestion and gives a better pulp.—A. P.-C.

The Cooking of Spruce Chips with Sulphur Dioxide Solutions of High Concentrations. John Palmen. Paper and Timber Journal of Finland Nos. 21, and 24, 1926; Pulp and Paper 25, 1547-1551 (Dec. 1, 1927). Solutions with very high sulphur dioxide content can be obtained by adding to water a solvent such as ethyl or methyl alcohol, acetic acid or acetone, or by using a non-miscible solvent such as amyl alcohol, ethyl acetate, benzene or cymene. Results are given of a number of tests carried out with liquor containing varying amounts of ethyl alcohol, sulphur dioxide and lime or ammonia. It was found that the higher sulphur dioxide concentrations used (up to 26.5 per cent) do not permit a shortening of the cooking period or a lowering of the cooking temperature to any considerable extent, that a high percentage of alcohol slows down the speed of the cooking reactions and contributes to the formation of dark-colored substance which can, however be removed by washing. —A. P.-C.

"Burnt" Cooks. Some Factors Influencing the Blackening of Sulphite During Digestion. W. H. Birchard. Paper Trade J. 85, No. 22, 49-50 (Dec. 1, 1927). Discoloration and burning of sulphite cooks is shown to be due to at least three causes: effects of acids formed during the cook on the pentosans and hexosans in the pulp, effect of unneutralized strong acids on the cellulose fibers, and effects of alkali and temperature on the aldehydes present in the cooking liquor forming insoluble resins.—A. P.-C.

Digestion of Wood by a Cooking Liquor with Low Sulphite Content. Erik Hägglund. Paper Trade J. 85, No. 16, 47-48 (Oct. 20, 1927). In the first stage of the digestion there is not a marked difference in results obtained with high sulphite and low sulphite contents because the first phase of the reaction (addition of sulphite) is entirely independent of the variation in the hydrogen-ion concentration, and also because the amount of lignosulphonic acid and sulphuric acid present at this stage is not sufficient to influence the acidity. The fibers of pulp obtained with liquor of low sulphite content were found to be much more "brittle" than when high-sulphite liquor was used, as shown by marked reduction in the tensile strength and folding resistance. The hydrogen-ion concentration of sulphite waste liquor was found to increase on prolonged standing, owing to formation of sulphuric acid. The pentosan of the liquor decreases during the cook, both because the pentosans in the wood became more difficultly hydrolyzable and because the dissolved pentosans are further decomposed, giving, among other products, furfural. The lignin value (amount insoluble in concentrated hydrochloric acid) increases in the case of dark (or "burnt") cooks without a corresponding increase in the methyl number. The rate of splitting off of the acetic acid in the wood is greater than the rate of increase of loosely bound sulphurous acid, indicating that two reactions proceed independently of each other (by "sulphite" the author apparently means "neutral sulphide" or combined SO_3 abs). —A. P.-C.

New Sulphite Pulping Process. A. G. Raoul Pictet and F. Tharaldsen. Fr. pat. 612,229. The wood is cooked at 110 degrees to 120 degrees C. with a strong suphurous acid solution, at a concentration of at least 100 g. per l. Owing to the high acid concentration, even at such a relatively low temperature the pressure is so high that the time of cooking can be reduced to 8 to 18 hours. A constant pressure of at least 8 atmospheres is maintained during the whole operation, and the digester is brought to the cooking temperature without relieving any gas. Nearly all the sulphurous acid remaining uncombined with the incrustants of the wood can be recovered. The advantages claimed for the process are: (1) elimination of the use of lime, with its drawbacks; (2) the sulphurous acid can be recovered; (3) it requires less heat as the time of cooking is reduced; (4) reduction in labor; (5) a higher grade pulp is obtained than by the usual process.—A. P.-C.

Process for the Treatment of Waste Liquors Containing Sodium Sulphite or Acid Sodium Sulphite. E. R. Rinman. Norw. pat. 43,715 and 43,716. Papir-Journ. No. 9, 130 (1927). The process consists of evaporating the clarified waste liquors and burning the residue, with an admixture of combustible material, with such regulation that the sodium salts are converted into Na_2S and Na_2CO_3. The melt is then dissolved in water and one or more oxides of metals whose sulphides are insoluble are added, thus converting the Na_2S into NaOH. The sulphide-free liquor is removed from the precipitate and is treated with SO_2 gas or solution to make up fresh liquor.—C. E. P.

Degradation of Cellulose by Sulphite Acid. W. H. Birchard. J. Soc. Chem. Ind. 47, 49-52T, Feb. 24, 1928. Experimental cooks carried out with various pulp stocks and regular sulphite liquor, using a regular cooking cycle, showed that the purer the cellulose the more it is degraded by sulphite cooking.—A. P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

Men, Money, Machinery and Materials and Their Relation to Costs*

By Thomas J. Burke, C. A.
Sec.-Treasurer of the Cost Association of the Paper Industry

Mr. Chairman and Gentlemen:

It was a pleasure to receive your kind invitation to address this Joint Meeting of Cost and Technical men for I am of the opinion, that the closer co-operation there is between the cost and technical men in the mills, the more accurate will be the costs compiled and the more accurate the costs are the better it will be for business generally, in our somewhat harassed industry.

We are harassed because we have been intemperate. We have, and to some extent, still are reaching out for larger production at a time when we have reached a point where our productive capacity is at least 20 per cent in excess of the normal demand for our products. Apparently many of us cannot see anything else but production and this has brought about a period of what has been foolishly called "profitless prosperity." I say "foolishly," because you cannot have prosperity unless you have reasonable profits. Therefore, I would sooner speak of this period as one of "profitless production," which you will note still retains the alliterative quality of the former slogan, but to my mind changes the meaning so as to bring it more into accord with the facts.

Profitless Production

Now what causes "profitless production"? I would say there are three fundamental causes:

1—A surplus productive capacity.

2—Lack of knowledge regarding fundamental facts about costs of production, distribution expenses and general statistical information, covering the industry at large.

3—Fear, often caused by a little knowledge which as you know, is a dangerous thing. You all know what "supine" means, viz, slack, afraid, etc.; well, take the "u" out of it and you get "spine." That's what we all have to do. Forget ourselves, our own immediate interests and look at this problem of "profitless production" from the viewpoint of our industry as a whole. When the bulk of us do that, our spines will stiffen and we will see to it that our production is profitable by refusing to sell except at a profit.

Now we cannot do much about the surplus capacity except find new uses for our products, and thus increase the demand. But that's not in my province, so I will say no more about it except to stress the need for a central Research Bureau, which could work in the general interests of the industry along these lines.

As regards the general lack of knowledge regarding fundamental facts about costs of production, I can say a good deal and I hope you will bear with me, while I do so, remembering that you will, I hope, have an opportunity to discuss this matter later.

Men

I said I would speak on Men, Money, Machinery and Materials, which you'll agree is a comprehensive title, covering as it does, the working tools of the pulp and paper manufacturer. Now I put men first, because I am more and more coming to the conclusion, that "men" make money. In other words, that the profits depend on the mill management and men. You can have a wonderful mill and still lose money. But if you have a wonderful personnel, you won't lose much, because they won't give anything away. If times are bad they may not make much but they certainly won't lose much. So as I see it, there is a vital necessity today for every mill to jack up its personnel, if it wants to make any "jack." Now as regards men, what's the situation in our mills today? I have found, after collecting the facts for the past 18 months, that 50 out of every 100 workers employed, are separated from their jobs each year. I say "separated," because they leave for different reasons. They may quit of their own accord, they may be discharged or laid off. Now none of us can help laying off men when business is slack. In fact, it's a wise precaution so we will leave them out of the picture. That accounts for 14 of our 50 men. But what about the other 36? Well, 6 of these are discharged. We cannot do much about that. It's no good keeping a man who's not giving satisfaction. We pay him to work and if he doesn't work well, we cannot afford to keep him. "Lay-offs" and "Discharges" thus account for 20 of our 50 men. What about the other 30? Well, my figures show, and remember these figures have been collected over a period of over 18 months, from over 100 mills employing nearly 20 per cent of the total employees in the industry, I say these figures show that 30 workers out of every 100 voluntarily throw up their jobs in pulp and paper mills each year. That's a fact that's costing us money. That's something we can do something about. Something we ought to do something about. I feel sure you'll agree with me about that. I don't care what their reasons are for leaving. We ought to know these reasons and endeavor to meet them

* Address delivered before the Kalamazoo Local Division of the Cost Association of the Paper Industry, June 23, 1928.

and reduce this 30 to at least 10. We know there are always "floaters" everywhere, no matter where you go, but I feel sure they don't comprise more than 10 per cent of our workers probably not more than 5 per cent. Now, if we can cut down the percentage of those who voluntarily give up their jobs each year from 30 per cent to 5 per cent, we shall cut our "labor turnover" rate in half, viz from 50 per cent to 25 per cent. That seems to me to be a very desirable objective from a cost standpoint, for if we are having to replace nearly 1 per cent of our organizations weekly throughout the year, we are certainly not getting the most efficient operating results. One more word on this subject. You should know that of this 30 per cent of men who quit, 5 per cent are "skilled" men and 25 per cent are "unskilled"; the ratio is approximately 1 to 5. The main problem then is with the "unskilled" men and that I think gives us an indication of how to go about improving this condition. Give these men an opportunity to improve their knowledge. In fact, go further than that. Insist upon them doing so and make it possible for them to get instruction. Then provide for an "exit" interview with each man leaving, and have a record kept of his reason for doing so. Study these records monthly or weekly and see if there is not some underlying cause for many of them leaving, which you can remove. Probably it won't cost much to do so and you will certainly save money if you are able to substantially reduce your labor turnover rate.

Wages

As regards rates of wages paid, a survey we made last year disclosed that there is not any very great variation throughout the country. There's a bigger variation in the number of hours worked than in the rates paid for the different jobs. Wages paid in our industry compare favorably with those paid in other industries for similar work, so I don't believe wage rates have anything to do with this problem. I have noted however, that those mills which have "group bonus" plans and "group insurance" schemes in operation, seem to hold their men better than the average. I believe bonuses paid on basis of work done and quality maintained to "groups" of workers are the kind best suited to our industry, rather than bonuses paid to individual workers. Before closing my remarks on "men," I want to say I presume your payrolls are named and numbered by departments. That you have control sheets which are used for a number of payrolls, thereby obviating the necessity for writing up this information each period and that special columns are provided for each deduction such as advances, insurance, etc. Proper analysis of payrolls is essential, of course, for the compilation of correct costs.

Money

Because money is so well accounted for, little need be said about this "working tool," except that there should be enough of it to provide adequate "working capital." Banking accommodation should only be necessary in the "high spots" of the business. That's a point our industry has to watch. Our capital turnover is slow and our capital investment heavy, so that careful financing is necessary at all times. This brings me to touch on the point of "cash discounts" allowed. I disagree with the generally prevailing legal point of view, that trade associations are ill advised to permit their members to make agreements as to rates of cash discount they will allow their customers. No decision has ever been rendered covering this point so the lawyers play safe. A "cash discount" is not a "trade discount." It's not a part of your selling price. It's a separate contract entirely from your selling contract. It's an agreement to pay a certain amount for prompt payment, based on the amount to be paid. Certainly this amount is deducted from the sales price by the buyer *if he pays within the allotted time*. But that's merely an arrangement for his convenience. You don't credit the *net* amount to your sales, you credit the gross amount, that is, the selling price, and charge the difference to discounts allowed. That's my point of view, and I would like to see this matter straightened out for we don't want competition based on credit capacity. We want fair competition based on quality and price. I maintain that getting business by extending credit terms is unfair competition. I would like to see the paperboard group's discount rate of 1 per cent established for the whole industry. It's a fair rate; it means allowing interest at 18 per cent per annum. That's as much profit as anybody makes in our industry so why give cash discount rates which amount to allowing interest at 36 per cent or even 54 per cent per annum, at least two or three times greater than the profit we make. Why should a manufacturer making several grades have to allow two or three different discount rates? It's an absurd situation and one that's costing us money which we can ill afford. The paradoxical part of the situation is that these high cash discount rates naturally operate to the advantage of the large well financed mills in the long run, although it's generally the poorly financed mill that starts offering special inducements for prompt payment in order to get cash to meet its obligations. That's what's happened in the past and perhaps may happen again, although surely these cash discount rates are high enough. Gentlemen, there should be no competition in credit. Our industry cannot afford it even if it were sound economics which it isn't. We have too many demands on our capital as it is. We haven't much left for a working margin, therefore I recommend a distinct tightening rather than a loosening of credit terms as being essential to sound business conditions in our industry.

Machinery and Equipment

How should we account for this important working tool? There's just one right and proper way and that is to face the facts, and the facts are, that in from 14 to 20 years from the time your mill is built and equipped, you've got to replace it. It will be out of date, obsolete, behind the times. You may be able to run it and make some money, but you'll be hanging on by the skin of your teeth. Probably you will during its life make improvements and thus keep up-to-date. In other words, you'll invest more money in it and that wants accounting for, so as to correctly reflect your financial position. This is one of the most important problems with which accountants in our industry have to deal. You all know the situation, viz, that 75 per cent of our invested capital is tied up in our "fixed" assets, $75,000 in every $100,000. That's a big percentage and we should account for this money just as carefully as we do for our cash. You cannot do this by keeping a couple of accounts in your General Ledger, in which miscellaneous expenditures are lumped and call one "Land and Buildings" and the other "Machinery and Equipment." If you do, what a heartbreaking job you have every time a piece of equipment is junked and replaced, or improved or moved, that is, if you are keeping your costs on any sort of a correct basis. What you must have, is a Special Ledger controlled by an account in the General Ledger. In this Plant Ledger, each machine and item of equipment will be listed separately showing purchase price, date of installation, location, from whom bought, rate of depreciation allowed, etc. I cannot emphasize too strongly the importance of keeping such a ledger, and if any mills represented here are not keeping one, I urge them to start one right away. It won't be an easy task, but that merely proves that the necessity is all the greater. Your depreciation cost is an important item and you cannot account for it satisfactorily unless you have available the information which can only be obtained by keeping a properly set up Plant Ledger. Before finishing on this subject, I want to tell you what a well-known executive said to me in my office rerecently, one who is well known and respected throughout the industry; one, who has given a good deal of his time to the upbuilding of our industry. He said, when I told him how important I felt it was that each mill should keep a Plant Ledger, and asked him what he thought the general situation was in this respect—"Burke, I don't believe eight mills out of ten have that information in properly available form. It's a matter that, in our mill, we have given a lot of time and thought to, and we believe we have now solved it satisfactorily, although owing to the way in which our records were kept years ago, we had a hard job to get the Ledger

started. Once started, it's not a difficult matter to keep it in good shape and we are now very glad indeed that we went through with it."

If that's the situation, gentlemen, we've got to get busy and "sell" 80 per cent of the mills on the idea of properly accounting for their fixed assets. You cannot have correct costs particularly in this industry unless you run a Plant Ledger, so start now.

Steam and Power

I want to make particular mention of the machinery and equipment in the steam and power plant, because of the fact, that about 40 per cent of our conversion cost consists of steam and power used or wasted. To properly account for the cost of these items, it is essential that we should first ascertain as closely as we possibly can, the total amount of steam produced from and at 212 degrees, and thus ascertain what the cost is per 1,000 pounds produced.

Our next endeavor should be, to account for this steam by tracing how it is used by the different consuming units, so that we shall be in a position to properly charge and account for the total steam produced. I am a great believer in flow meters, although I have heard many objections to them. However, I know, that in a number of mills today, they are giving good service and I also know, that they have in numerous cases been the means of making it possible for substantial savings to be made.

In view of the importance of these items, as accountants we should ask for the closest co-operation from the technical men, in properly accounting for the money spent on the equipment necessary in steam and power plants, and for the steam and power produced therein.

I might touch on depreciation rates now, but have not much time. Suffice it to say, that backed by the American Paper and Pulp Association, the Writing Paper Manufacturers Association and other affiliated Associations, the Cost Association is making a thorough survey to obtain full information regarding rates now being used and those suggested for use which will be compiled into a Report, to be laid before a Committee representative of the whole industry. This Committee will then draw up a list of Standard rates which will be submitted to each mill for approval. When finally approved by the industry, this list will be submitted to the Bureau of Internal Revenue and in this way we hope finally to have a list of Standard Depreciation rates which will be used with variations by all mills. The Bureau will allow, without questioning them at all, rates up to 20 per cent (one-fifth) above or down to 20 per cent (one-fifth) below the rates we agree on, a total variation of 40 per cent which should take care of most of the causes for differences in the various mills. However, if for special reasons a greater variation is required, it will be allowed by the Bureau, provided satisfactory reasons are given explaining the necessity for the increase. It's a matter which will require careful study and I can assure you, that your interests will be fully protected in every way, even to the extent of delaying the conference with the Bureau until such time as a majority of the outstanding tax cases are cleaned up by the Bureau. .

Materials and Supplies

I now come to a consideration of the accounting for the last named "working tool," viz: "Materials and Supplies." How best account for the millions of dollars we spend yearly for coal, wood, pulp, etc. In many mills it's a problem for the accountants to do this properly because the handling equipment or the storage facilities are inadequate. In other words, they cannot get the facts, they have to rely on estimates and as these estimates are correct or incorrect, so their costs vary accordingly. Of course, perpetual inventory cards should be kept, that is a running inventory of each kind of material and supply used. Cards ruled to allow for entry of each lot received and for quantities used. There should be a storehouse, in charge of a storekeeper, responsible for this asset. These stores should be handled as carefully as cash in the bank. They require just as careful accounting as cash. We don't take chances with cash, why do we with stores? Simply because accounting for cash has been evolving for generations, whereas, accounting for stores in quantities is a comparatively modern necessity that has arisen, due to the size and complexity of modern manufacturing operations. There are now men who specialize in this work and earn their salaries too. It's a problem that requires careful study. Proper accounting for stores may make all the difference between black and "red." Even the accrued interest on the average amount tied up in stores, and by stores I mean all materials and supplies, amounts to a respectable sum in the course of a year. I am not suggesting that you should include this interest in your costs, but rather that by careful and proper accounting for stores, you can often cut down considerably on the total average amount tied up in stores and thereby release a goodly sum which can probably be put to good use elsewhere. One way to gauge the saving, is to figure interest on it at 6 per cent per annum.

Now I know many of you cost men have difficulty in checking up on quantities of materials used. Wood, pulp, and coal—how to measure correctly the quantities used are problems for our technical friends. I have already taken this up with Ronald Macdonald, the new Secretary of the Technical Association, whom you've already met and he tells me there's no best way yet evolved. All we can do then, is to take extra care by having separate piles instead of one big pile and thereby obtain frequent checks on our book figures. I know that's old stuff but it has often prevented one of those big differences caused by incorrect estimates, which we all know about. The great thing to remember is, that we are dealing with cash money in large quantities and profit margins are small, so the sooner we can establish control over these inventory variations the more correct our costs will be and the more likely we are to make reasonable profits. As regards materials and supplies, which can be kept under cover, there should be no mistakes of any consequence. Nothing should be given out except against properly signed requisitions. That should be a strict inviolate rule. You wouldn't give a man who came in the office and asked for it a $50.00 bill, why give him stores worth that amount because he says he has to have it. His requisition is his check. Your stores ledger is your Cash Book, and it has to balance with a controlling account, just as the cash book has to be reconciled with your bank balance. If we're going to make money we've got to have proper control all along the line. Follow the cash through to the finished paper. That's the principle.

If it were possible to dilute money in the same way that it is possible to dilute pulp, I wonder how many of us would spread fine copper nets under the effluent discharged from many of our mills. That may sound rather a far fetched idea, but I am following along the suggestion that as accountants, it is up to us to assist in every way possible in accounting for expenditures. We buy pulp and rags and other materials and make paper, with from anywhere from 70 per cent to 95 per cent of these materials. By this I mean, that investigations have clearly shown that from 5 per cent to 30 per cent of these materials do not go into the paper made, nor even into the broke, but down the sewer with the waste water. We will take the conservative estimate and say that we cannot account for 12½ per cent of the money spent; that means, that if you are spending $80,000 a year on materials, you are not accounting for $10,000 per annum. I know this is an operating problem, but inasmuch as we are responsible as accountants for the money spent, and since we are live wires, we must know that there are such things as save-alls.

Those who have attended our Conventions in the past year or two also know that some mills have successfully solved this problem, and reduced the loss to 5 per cent or less. I say 5 per cent, because that is a mark to shoot at, and one that it is quite possible to attain in most mills. I believe that our friends the fine paper mills, will eventually decide that it is worth while to

take as much care of these fibers after they pass through the wire, as it is before they go on the machine. I mention them particularly, because in their case I have been told, it is very difficult to reuse the white water on account of slime in making high-grade papers. When you can buy save-alls and save enough to pay for them in less than six months or a year, it surely is a fact in which as accountants, we must not only be interested, but active in following up the possibilities.

Men and Their Relation to Costs

There's one pecularity that nearly all of us have in common and that is that in most things we do, we don't try our hardest until pushed. We don't worry much as long as things are going along all right. That's one reason why it's so hard to put over this plan for proper accounting. I guess most mills feel they know their costs close enough even although they figure by estimates. I know just how they feel. I once felt that way when I went sailing with a friend. I had crossed the ocean several times and had never been sick. I was a good sailor. I was not worrying at all that trip. But believe me before that week end was over, I wished I hadn't taken so many chances with clams. I stocked up on clams at a low cost, but they spoiled my trip. That's the way it is often in industry. We stock up and go ahead regardless of consequences and don't find out until it's too late that with a little more care we could have weathered the storm without much difficulty. But I'm talking in generalities which doesn't amount to much. So let's get down to "brass tacks," that is, "net profits." What is the relation of your "men" to your costs? Why, all important. If they're working with you instead of for you, it may easily make a difference of 10 per cent and that's a conservative estimate. You may be thinking what's that to me; I'm an accountant, a cost man, I can't help that situation. Maybe you can, maybe you can't. It depends on what you do about it. To have men working "with" you, you've got to make them understand you're working "with" them. They must understand why the reports you ask them to fill in must be accurate and why they are necessary. That's the relation of mill men to costs. That overworked word "co-operation" describes the situation. There must be a co-operative spirit all along the line. It must percolate like coffee from the top to the bottom of the organization. In my opinion, such a spirit can best be generated by a system of group bonuses for each department. With such a system each group will soon speed up its slackers and if bonuses are so arranged that they depend on the quality as well as the quantity of the production of the department, the only logical result can be a general improvement in the costs all along the line.

The Relation of "Money" to Costs

Money is next in importance to men as a cost item, because you must have money to make money. There are always innumerable ways of spending it around a mill. Possibilities for making savings in costs through improvements are constantly being brought to the attention of the mill management and their's is the decision as to the order in which such improvements shall be undertaken. Your part as accountants is to have in operation a budget system which will show approximately what money will be available from time to time for such purposes. This plan will estimate the receipts from sales (monthly for six months or a year ahead), the expenditures for labor, materials, fixed charges (bond interest, taxes, insurance, etc.) and last but not least, we hope, dividends. You can then closely estimate how much you can afford to spend on improvements, and knowing this, you will very carefully consider which improvement to undertake *first*, because it will yield the biggest return through reducing your costs. There are, of course, other ways of paying for improvements than out of surplus, but no matter what method is chosen, sooner or later you have to make enough profit to foot the bill.

During my banking and public accounting experience I so often saw cases of good concerns failing because the management did not give sufficient attention to the "money" factor of their business. That's one reason why I'm so strong for making a thorough study of balance sheet ratios in our industry. Through our work along these lines, we have already ascertained that capital is turned over in our industry on the average only once or one and a half times a year, and that a going mill seldom has more than 10% of its investment available for "working capital" (exclusive of inventories). We haven't any big margins of safety, so work out your own ratios quarterly and compare them with past years. Do this by means of a line chart, and you will quickly get an adequate idea of how you are progressing financially. If it shows a good picture, you can show it to your bankers. It will help when you want a loan.

Machinery and Equipment and Their Relation to Costs

We've been hearing a lot lately about unemployment caused by the use of labor saving devices. This is a machine age. Wage rates are high and economists tell us that our prosperity depends on maintaining them at a high level. We must therefore, increase the quality and reduce the quantity of our labor if we want to reduce costs. This can only be done by the use of improved machinery and equipment. Now machines are easier to regulate than men. The "human element" is always uncertain, but with proper attention a machine will do the same thing over and over again at the same approximate cost. This makes easier the standardization of our cost accounting procedure, and I strongly urge each accountant in our industry in charge of a Cost Department, to build up standards in co-operation with the operating and technical men, representing a reasonable possible attainment with the machinery and equipment available. What should count is not what has been done before, but what it should be reasonably possible to do with the equipment at hand. That's all "Standard Costs" amount to. The difficulty, of course, arises in setting the standards. Well, don't do away with your present cost system but still set up standards in each department, one or two at a time and instead of checking the actual against the standard costs, check the standards you have tentatively adopted against the actual until you feel you have arrived at a figure which represents a reasonable possible attainment for each machine. In this manner, you can "standardize" gradually and when you have finally arrived at standards for each operation, can change over to a standard cost system when you are assured you can safely do so. To accomplish this, satisfactorily, each job as well as machine must be standardized. There can be no duplication of authority or responsibility, so your executive must be also "sold" on the idea. That's my idea of the relationship of machinery to costs, viz, we've got to know what machines can reasonably do and cost our products accordingly, instead of costing them on what machines actually do even when their actual accomplishment is below the possible standard accomplishment. When we do this, we really inflate our inventories and then deflate them at the end of our fiscal year by pricing our finished products at what they're really worth.

Materials and Costs

The relationship of materials and supplies to costs is self-evident. The only suggestion I have to add to the remarks made previously, is that your use of these "working tools" should be standardized just as the operations of your machines and your men. 'Standard" furnishes should be worked out for each of your products and used in costing them. There will be variances in price as well as quantities used, which will have to be differentiated and examined for causes. Many mills have already set up such standards and their beaters are being furnished accordingly. Our friends the chemists and technicians are working out the problems of paper-making on a scientific basis thus making possible standardized beater furnishes. In fact, it's my belief they will gradually make it possible for us to get correct costs without having to "estimate" so many factors, which we are told cannot be satisfactorily measured.

For reliable running and average long life

LINDSAY FOURDRINIER WIRES

are unsurpassed

We make them for the largest and fastest machines.

Cylinder Wires All Sizes

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Uses Silicate of Soda in the Beater?

A question which is often put to us.

Makers of the following kinds of paper use Quartz Quality silicates regularly:

Kraft	Offset
Writing	Cover
Glassine	Bristol
Tissue	Container Board
Wrapping	Magazine
Book	Trunk Fibre Board

and others. We wouldn't mind giving you the names of mills, but our customers have asked us not to, for the same reason that you wish your furnish kept confidential. We respect their confidence and yours as well.

When shall we send you a few drums of "A-Syrup" size for a comparative run?

Philadelphia Quartz Company
MAKERS OF SILICATE OF SODA
Philadelphia, Pa.

Prompt deliveries made from stocks in
NEW YORK
BOSTON
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No ifs, ands, or buts

We like to have you ask about the quality of Heller & Merz dyestuffs. No questions are evaded. These colors are made to the requirements of modern scientific demand. That is why we believe Heller & Merz dyestuffs will satisfy you as they are satisfying so many exacting users.

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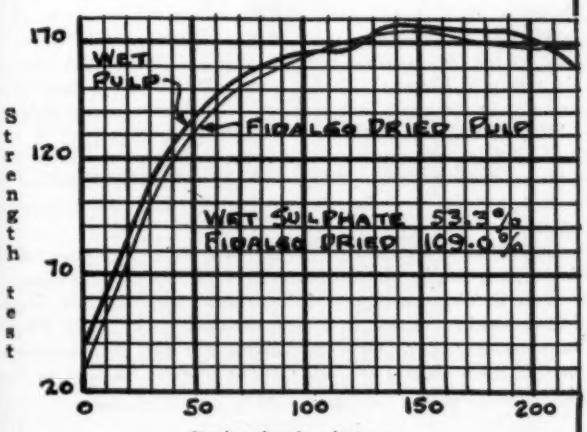
FIDALGO DRYING SYSTEMS

Wet Pulp Results With Dry Pulp



Curve Illustrating comparison between Wet and FIDALGO Dried in Beating and Strength Tests.

Note how closely the curve on FIDALGO Dried Pulp follows the Wet pulp curve.

High steam economy. Shredded Pulp shipped in Bales.

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Close Co-operation Necessary Between Accountants and Technical Men

I urge the closest possible co-operation with them, for our interests are identical. I trust also they will co-operate with us. By working together we can undoubtedly get at the facts and thus arrive at the true costs. I hope too many of them unless they are also trained acountants, won't call themselves "cost engineers" and attempt to combine the two jobs. This is a day of specializing. If you specialize in two jobs so much the better. Some engineers are trained accountants, but I have never met one yet in that class, who regularly spoke of himself as a "cost engineer." They prefer to admit their dual capacity as accountants and engineers.

In conclusion therefore, I want to say I trust that the executives in charge of the "men" will always have the best kind of help from the accountants in charge of the money, and the technical men in charge of production, so that the good ship "Business" guided by the compass of correct costs, manned by a well trained crew and always under scientific control, will keep away from the rocks of profitless production and yearly reach the haven of "Reasonable Profits".

Chicago Paper Trade Happenings

CHICAGO, Ill., June 25, 1928.—The Chicago Paper Association will hold its next meeting at the Bismarck Hotel, Chicago, Tuesday evening, June 26. Although no definite program has been announced it is entirely probable that a final choice will be made as to the new secretary elected to fill that office for the association. The secretary will both publicize the efforts of the coarse paper group and endeavor to install a uniform auditing system among member merchants according to reports.

The big outing planned by the association is to be an unusual and generous affair. Instead of being confined to the select circle of member merchants and men in the coarse paper field, representatives of every line of paper, irrespective of grade, quality or kind are cordially invited to attend the four day outing. Jim Danahee, of the Schwarz Paper Company, chairman of the outing committee, announces the place as the Golfmoor Hotel, Grand Beach, Michigan.

The Golfmoor Hotel is in the midst of a beautiful location and those fortunate enough to attend the outing will get in a lot of good golf, swimming and other sports. Thursday, July 12, is the date set for the departure from Chicago and Sunday the 15th for the return to Chicago. The chairman will be glad to hear from any one in the paper field wishing to enjoy this outing with the Chicago Paper Association.

H. B. Law, vice president of Dwight Brothers Paper Company, Chicago, was in Dayton, Ohio, a few days last week. It is reported that his chief diversion in that city was golf—and plenty of it.

Leo Dussard, president of the National Paper Company, of St. Louis, Mo., was in Chicago a few days last week on business.

O. L. E. Weber, manager of the Watab Paper Company, Sartell, Minn., was in Chicago for a short time last week. C. H. Phipps, sales manager of the same organization, also paid business friends in Chicago a short visit. Mr. Weber was on his way to Ann Arbor and Detroit.

Finnish Market Satisfactory

WASHINGTON, D. C., June 20, 1928.—The Finnish pulp and paper market on the whole continues to be satisfactory according to reports received here. News print paper has been in better demand recently and markets for thin printing paper in China are also improving. Orders for wrappings are reported to be sufficient to keep the mills busy for several months to come. Kraft prices continue firm, although a falling off in the demand for this grade is discernible. Shipments of all classes of paper during the first four months of the current year amounted to 87,867 short tons as against 78,320 tons last year.

Paper Makers' Chemical Co. Reorganizes

EASTON, Pa., June 25, 1928.—The Paper Makers Chemical Company, which has operated separate units throughout the United States, has reorganized and consolidated these subsidiaries into one large corporation under the name of Paper Makers Chemical Corporation. The new company is capitalized at $8,000,000.

The corporation's reasons for the consolidation and the stating of its policy was made in an announcement to the paper and allied industries as follows:

"In order to give better and more efficient service, and to carry on more united and effective research in its customers' problems, and to effect economies which will benefit the trade served, the following companies announce a reorganization and consolidation of interests: Paper Makers Chemical Company, Western Paper Makers Chemical Company, Vera Chemical Company, Vera Chemical Corporation, Adirondack Mineral Company, Superior Sizing Company, John Regnier and Son Company, and the Keystone Products Company."

These companies which have heretofore been separate and distinct units with individual policies will now be operated under one management. The present personnel of these organizations will be united to serve the paper industry under one name—Paper Makers Chemical Corporation.

This new company also announces control and management of the following subsidiary organizations: Superior Pine Products Company, Suwannee Forests, Echols and Clinch counties, Ga., Vera Chemical Company of Canada, Ltd., Burlington, Ont., Canada, Georgia-Louisiana Corporation, Atlanta, Ga., and New Orleans, La., and the Empire Size and Chemical Corporation, Albany, N. Y.

The control of the Superior Pine Products Company gives the corporation over 200,000 acres of pine forests which will furnish an almost unlimited supply of refined rosin, turpentine, and other products to its various plants.

The new corporation will have plants in Kalamazoo, Mich., Comstock, Mich., Holyoke, Mass., Boston, Mass., Stoneham, Mass., Pensacola, Fla., Jacksonville, Fla., Savannah, Ga., Atlanta, Ga., Marrero, La., Albany, N. Y., Lockport, N. Y., North Milwaukee, Wis., and Burlington, Ont. The Pochins and Paper Makers Chemicals, Ltd., of Erith, Kent and Manchester, England will also be associated with the new corporation.

The products of the corporation are principally chemicals used in paper and allied industries.

Today the corporation is the largest of its kind in the world.

Chicago Paper Market Conditions

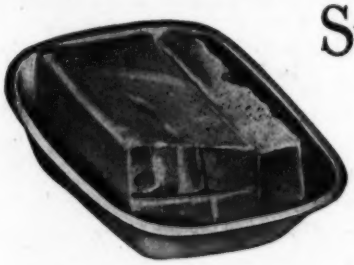
[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., June 25, 1928.—The most important news in the Chicago paper market is the drop in kraft that is said to be making the situation somewhat serious for Chicago paper dealers. Kraft is reported to have gone down about $10 per ton. A resume of the opinions of a number of Chicago paper merchants brings out the point that most of the dealers have their stocks fairly well cleaned out and that this condition lessens the seriousness of the drop.

The news print market is still very unstable and no one seems to be exactly able to put their hand on any actual price quoted to newspapers. Volume in nearly every line of paper handled is good but prices are too low for any fair profits. Prices in bleached and unbleached sulphite have stiffened considerably during the past week, especially the former, and this grade provides one of the interesting spots of the week's report.

In interviewing paper merchants relative to the cut in news print and kraft prices, the viewpoint of all concerned seems to be excellent. Chicago paper men are going out and working hard for the business. Optimism seems to prevail despite the serious conditions in these two grades which will undoubtedly right themselves in due time.

Get more business from Delicatessen Stores



PAPRUS DISHES will help you. They hold their shape like wood—yet sell for less than paper. Waterproof—no folds—no staples. Moulded in one piece from pulp. White—sanitary—attractive! More and more dealers are using them. Write for price list.

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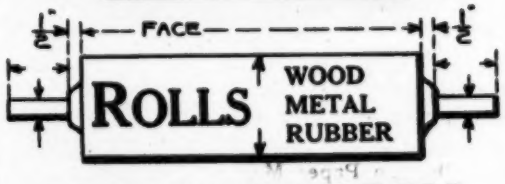

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ENGINEERS

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JUNE 23, 1928

SUMMARY

Cigarette paper .....312 cs.
Wall paper .....8 bls., 13 cs.
Paper hangings .....21 bls., 42 cs.
Hanging paper .....31 cs.
News print .....3,878 rolls, 681 bls.
Printing paper .....406 rolls, 67 bls., 399 cs.
Wrapping paper .....75 cs., 16 bls.
Packing paper .....27 bls., 86 cs.
Stencil paper and ink .....27 cs.
Pergamyn paper .....6 bls., 15 cs.
Sulphate paper .....432 rolls
Filter paper .....29 bls., 9 cs.
Drawing paper .....31 cs.
Stationery .....4 cs.
Tissue paper .....9 cs.
Grease proof paper .....19 cs.
Crepe paper .....7 cs.
Crepe printed paper .....3 cs.
Parchment paper .....15 bls., 7 cs.
Cardboard .....217 cs.
Cable paper .....4 cs.
Writing paper .....17 cs.
Baryta coated paper .....56 cs.
Gold coated paper .....4 cs.
Surface coated paper .....116 cs.
Basic paper .....5 cs.
Decalcomania paper .....28 cs.
Duplex decarbonized paper .....32 cs.
Colored paper .....14 cs.
Straw board .....309 rolls
Miscellaneous paper....487 rolls, 231 bls., 145 cs.

CIGARETTE PAPER

De Manduit Paper Corp., MacKeesport, Havre, 232 cs.
Standard Products Corp., Paris, Havre, 40 cs.
De Manduit Paper Corp., Vincent, Havre, 40 cs.

WALL PAPER

S. Stern Stiner & Co., Inc., Hamburg, Hamburg, 1 ble.
R. F. Downing & Co., Hamburg, Hamburg, 2 bls.
F. J. Emmerich, Minnesota, London, 2 bls.
A. C. Dodman, Jr., Inc., Majestic, Southampton, 3 bls., 2 cs.
Bendix Paper Co., Reliance, Hamburg, 10 cs.
Thomas & Pierson, Berengaria, Southampton, 1 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., Carmania, London, 5 bls., 37 cs.
W. H. S. Lloyd & Co., Scythia, Liverpool, 14 bls.
A. C. Dodman, Jr., Inc., Baltic, Liverpool, 2 bls., 1 cs.
Whiting & Patterson Co., Inc., Majestic, Southampton, 4 cs.

HANGING PAPER

Titan Shipping Co., Paris, Havre, 30 cs.
C. Grimmer & Son, Paris, Havre, 1 cs.

NEWS PRINT

N. Y. Telegram, Humberarm, Corner Brook, 2,321 rolls.
Brooklyn Times, Humberarm, Corner Brook, 562 rolls.
Brooklyn News, Humberarm, Corner Brook, 404 rolls.
Clinton Paper Co., Humberarm, Corner Brook, 150 rolls.
Walker, Goulard, Plehn Co., Inc., Stuttgart, Bremen, 54 bls.
F. Henjes, Jr., Hamburg, Hamburg, 65 rolls.
Perkins, Goodwin & Co., Hamburg, Hamburg, 151 rolls.
Parsons & Whittemore, Inc., Berlin, Bremen, 627 bls.
Journal of Commerce, Malaren, Kotka, 117 rolls.
O. Ray, Drottningholm, Gothenburg, 108 rolls.

PRINTING PAPER

Walker, Goulard Plehn Co., Inc., Stuttgart, Bremen, 22 cs.
National City Bank, Stuttgart, Bremen, 76 cs.
Hoboken Trust Co., Stuttgart, Bremen, 8 cs.
P. C. Zuhlke, Lapland, Antwerp, 81 cs.
S. Bienfang, Lapland, Antwerp, 11 cs.
E. Dietzgen & Co., Hamburg, Hamburg, 23 cs.
National City Bank, Hamburg, Hamburg, 67 bls.
Keuffel & Esser Co., Hamburg, Hamburg, 59 rolls.
National City Bank, Victoria Maru, Hamburg, 55 bls.
Judson Freight Forwarding Co., N. Amsterdam, Rotterdam, 12 cs.
E. Dietzgen & Co., N. Amsterdam, Rotterdam, 71 cs.
P. C. Zuhlke, Suevier, Antwerp, 56 cs.
H. Reeve Angel & Co., Inc., Malaren, Kotka, 39 cs., 347 rolls.

WRAPPING PAPER

Birn & Wachenheim, Lapland, Antwerp, 71 cs., 2 bls.
J. E. Bernard & Co., Lapland, Antwerp, 14 bls., 4 cs.

PACKING PAPER

W. J. Honan, Stuttgart, Bremen, 9 bls.
Old Master Paper & Pulp Corp., Hamburg, Hamburg, 57 cs.
Haule Wax Paper Manfg. Co., Hamburg, Hamburg, 20 cs.
International Forwarding Co., Hamburg, Hamburg, 4 cs.
Walker, Goulard, Plehn Co., Inc., Victoria Maru, Hamburg, 18 bls.
International Forwarding Co., Reliance, Hamburg, 5 cs.

STENCIL PAPER AND INK

Arlac Dry Stencil Co., Hamburg, Hamburg, 27 cs.

PERGAMYN PAPER

F. C. Strype, Hamburg, Hamburg, 7 cs.
Central Union Trust Co., Hamburg, Hamburg, 8 cs.
Quality Art Novelty Co., Reliance, Hamburg, 6 bls.

SULPHATE PAPER

Insight Paper Co., Bergensfjord, Oslo, 432 rolls.

FILTER PAPER

H. Reeve Angel & Co., Inc., Carmania, London, 9 cs.
A. Giese & Son, Reliance, Hamburg, 29 bls.

DRAWING PAPER

H. Reeve Angel & Co., Inc., Carmania, London, 3 cs.
Keuffel & Esser Co., Hamburg, Hamburg, 28 cs.

STATIONERY

Dyson Shipping Co., American Farmer, London, 4 cs.

TISSUE PAPER

G. W. Sheldon & Co., American Farmer, London, 2 cs.
F. C. Strype, Scythia, Liverpool, 1 cs.
B. F. Drakenfeld & Co., Scythia, Liverpool, 6 cs.

GREASE PROOF PAPER

American Express Co., Hamburg, Hamburg, 19 cs.

CREPE PAPER

L. Greenberg & Son, Hamburg, Hamburg, 7 cs.

CREPE PRINTED PAPER

Steffens Jones Co., Argun Maru, Kobe, 3 cs.

PARCHMENT PAPER

Walker, Goulard, Plehn Co., Inc., Hamburg, Hamburg, 15 bls.
S. Bienfang, N. Amsterdam, Rotterdam, 7 cs.

CARDBOARD

American Express Co., Hamburg, Hamburg, 120 cs.
Coty, Inc., Paris, Havre, 97 cs.

CABLE PAPER

Standard Underground Cable Co., N. Amsterdam, Rotterdam, 4 cs.

WRITING PAPER

L. Bamberger & Co., MacKeesport, Havre, 2 cs.
The Eleto Co., Aquitania, Southampton, 4 cs.
Coenca Morrison Co., Aquitania, Southampton, 3 cs.
Frederick & Nelson, Paris, Havre, 2 cs.
Guibout Freres, Paris, Havre, 2 cs.
Tiffany, Inc., Majestic, Southampton, 2 cs.
B. Altman & Co., Majestic, Southampton, 1 cs.
W. J. Byrnes & Co., Vincent, Havre, 1 cs.

BARYTA COATED PAPER

J. H. Schroeder Banking Corp., Stuttgart, Bremen, 56 cs.

GOLD COATED PAPER

F. Murray Hill Co., Stuttgart, Bremen, 3 cs.

GOLD PAPER

Steffens Jones Co., Argun Maru, Kobe, 1 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Lapland, Antwerp, 54 cs.
Gevaert Co. of America, Lapland, Antwerp, 57 cs.
Whiting & Patterson Co., Inc., Hamburg, Hamburg, 5 cs.

BASIC PAPER

American Express Co., Lapland, Antwerp, 5 cs.

DECALCOMANIA PAPER

L. A. Consmiller, Berlin, Bremen, 17 cs.
C. W. Sellers, Berlin, Bremen, 4 cs.
C. W. Sellers, Reliance, Hamburg, 7 cs.

DUPLEX DECARBONIZED PAPER

B. F. Drakenfeld & Co., Scythia, Liverpool, 32 cs.

COLORED PAPER

P. H. Petry & Co., Hamburg, Hamburg, 3 cs.
P. H. Petry & Co., Berlin, Bremen, 9 cs.
Phoenix Shipping Co., Berlin, Bremen, 2 cs.

STRAW BOARD

Perkins, Goodwin & Co., N. Amsterdam, Rotterdam, 132 rolls.
A. Vuyk, N. Amsterdam, Rotterdam, 177 rolls.

MISCELLANEOUS PAPER

H. Reeve Angel & Co., Inc., Stuttgart, Bremen, 106 bls., 343 rolls.
F. C. Strype, Hamburg, Hamburg, 1 cs.
Gilbert Paper Co., Bird City, Gothenburg, 109 bls., 62 rolls.
P. H. Petry & Co., N. Amsterdam, Rotterdam, 8 cs.
H. D. Catty & Co., N. Amsterdam, Rotterdam, 3 cs.
S. Gilbert, Berlin, Bremen, 14 cs.
P. Puttmann, Suevier, Antwerp, 48 cs.
Wilkinson Bros. & Co., Inc., Malaren, Norrkoping, 82 rolls, 6 bls.
J. D. Smith & Co., Paris, Havre, 3 cs.
Tiffany, Inc., Paris, Havre, 3 cs.
Tice & Lynch, Paris, Havre, 23 cs.
F. L. Kramer & Co., Paris, Havre, 1 cs.
Standard Products Corp., Paris, Havre, 8 cs.
E. H. Sargent & Co., Drottningholm, Gothenburg, 2 cs.
Baldwin Universal Co., Yorck, Bremen, 16 cs.
Whitefield Paper Works, Argun Maru, Kobe, 10 cs.
Steiner Paper Corp., Argun Maru, Kobe, 1 cs.

RAGS, BAGGINGS, ETC.

V. Galaup, MacKeesport, Havre, 53 bls. rags.
Katzenstein & Keene, Inc., MacKeesport, Havre, 206 bls. bagging.
Castle & Overton, Inc., MacKeesport, Havre, 65 bls. rags.
G. W. Millar & Co., MacKeesport, Dunkirk, 108 bls. rags.
J. Cohen Son & Co., Transylvania, Glasgow, 19 bls. paper stock.
A. H. Searle, Inc., Transylvania, Glasgow, 177 bls. paper stock.
T. D. Downing & Co., Transylvania, Glasgow, 90 bls. paper stock.
J. Cohen Son & Co., Baltic, Liverpool, 17 bls. rags.
National City Bank, Baltic, Liverpool, 58 bls. rags.
E. Butterworth & Co., Inc., Baltic, Liverpool, 54 bls. bagging.
Bank of The Manhattan Co., Baltic, Liverpool, 161 bls. rags.
E. J. Keller Co., Inc., Lapland, ——, 165 bls. flax waste.
Ernst Mayer, Hamburg, Hamburg, 12 bls. rags.
American Exchange Irving Trust Co., Hamburg, Hamburg, 84 bls. cotton waste.
Philadelphia National Bank, Pres. Wilson, Venice, 139 bls. rags.
Castle & Overton, Inc., Pres. Wilson, Venice, 113 bls. rags.
Whaling Waste Products Co., Victoria Maru, Hamburg, 66 bls. flax card waste.
G. W. Millar & Co., Victoria Maru, Hamburg, 124 bls. rags.
S. Birkenstein & Son, Victoria Maru, Hamburg, 96 bls. rags.
Overton & Co., N. Amsterdam, Rotterdam, 151 bls. bagging.
P. Berlowitz, N. Amsterdam, Rotterdam, 59 bls. paper stock.
Union Bank & Trust Co., Lowther Castle, Barcelona, 280 bls. rags.
E. J. Keller Co., Inc., Lowther Castle, ——, 445 bls. rags.
Jaffe Products Co., Primero, Havana, 55 bls. rags.
New York Trust Co., Blue Triangle, Barcelona, 123 bls. rags.
Interstate Trust Co., Isarco, Leghorn, 88 bls. rags.
Banco Com'l Italiane Trust Co., Isarco, Leghorn, 55 bls. rags.
J. Cohen Son & Co., Inc., Vincent, Havre, 14 bls. rags.
V. Galaup, Vincent, Havre, 212 bls. rags.
American Exchange Irving Trust Co., Vincent, Havre, 38 bls. waste paper.
B. D. Kaplan, Vincent, Havre, 7 bls. rags.
American Over Ocean Corp., Argun Maru, Kobe, 36 bls. rags.

OLD ROPE

E. J. Keller Co., Inc., Hellig Olav, ——, 695 bls.
W. Schall & Co., Hamburg, Hamburg, 27 coils.

(Continued on page 64)

BOLTON QUALITY

JOHN W. BOLTON & SONS, INC.

EAGLE KNIFE & BAR WORKS

Lawrence, Mass.

The only firm making KNIVES for every machine from wood pile to finishing room.

It's the KNIVES that do the work!

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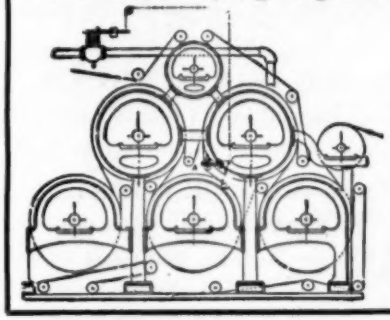

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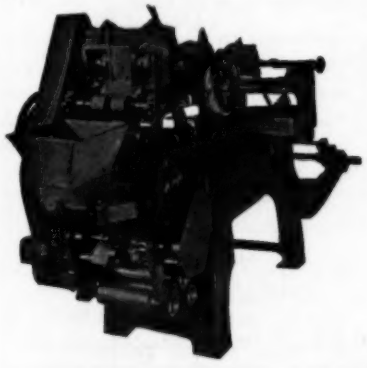
YOU'LL MAKE NO MISTAKE IN ACCEPTING IT

Pickles Drying Regulator

will do everything we claim for it and more. The test costs you nothing until you are satisfied. Many mills tried one and now have every machine equipped. Write for list of users and other information.

W. F. PICKLES **Buckland, Conn.**



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Cotton and Paper Rolls
Super Calenders
Friction Calenders
Embossing Calenders
Hydraulic Presses and Pumps

Successors to the Granger Foundry & Machine Co.

The Textile-Finishing Machinery Company
PROVIDENCE, R. I.

Imports of Paper and Paper Stock

(*Continued from page 62*)

American Exchange Irving Trust Co., Pres. Wilson, Palermo, 103 pkgs.
Brown Bros. & Co., N. Amsterdam, Rotterdam, 60 coils.
Brown Bros. & Co., Chicago City, Bristol, 94 coils.
New York Trust Co., Isarco, Genoa, 46 coils.
Banco Com'l Italiane Trust Co., Isarco, Leghorn, 133 bls.
Brown Bros. & Co., Alfonso XIII, Coruna, 85 bls.
E. J. Keller Co., Inc., Lapland, ——, 44 bls.

CASEIN

Equitable Trust Co., Hamburg, Hamburg, 227 bags, 22,000 kilos.
Crawford, Keen & Co., Primero, Buenos Aires, 918 bags, 55,080 kilos.
M. E. Clarendon & Sons Co., Primero, Buenos Aires, 250 bags, 15,000 kilos.
National City Bank, Primero, Buenos Aires, 417 bags, 25,020 kilos.
Champion Coated Paper Co., Primero, Buenos Aires, 1,261 bags, 61,511 kilos.
Kalbfleisch Corp., Western World, Buenos Aires, 2,084 bags.

WOOD PULP

Atterbury Bros., Inc., Bergensfjord, Oslo, 500 bls. wood pulp.
Perkins, Goodwin & Co., Bergensfjord, Drammen, 250 bls. sulphite.
Chemical National Bank, Bergensfjord, Oslo, 450 bls. sulphite.
Chase National Bank, Bergensfjord, Oslo, 800 bls. sulphate.
Atterbury Bros., Inc., Hellig Olav, Oslo, 500 bls. wood pulp.
Castle & Overton, Inc., Hamburg, Hamburg, 2,544 bls. wood pulp.
Johanson, Wafer & Sparre, Inc., Carlsholm, Gothenburg, 729 bls. wood pulp.
Pagel, Horton & Co., Inc., Bird City, Ornskoldsvik, 300 bls. sulphite, 50 tons.
Perkins, Goodwin & Co., Bird City, Umea, 700 bls. sulphate, 101 tons.
Atterbury Bros., Inc., Berlin, Bremen, 953 bls. wood pulp.
Equitable Trust Co., Malaren, Gothenburg, 250 bls. sulphite.
E. M. Sergeant & Co., Malaren, Gothenburg, 1,197 bls. dry soda pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Stuttgart, Bremen, 304 bls.
Chatham & Phoenix National Bank, Drottningholm, Gothenburg, 35 bls.

WOOD PULP WADDING

Birn & Wachenheim, N. Amsterdam, Rotterdam, 15 cs.

WOOD FLOUR

State Chemical Co., N. Amsterdam, Rotterdam, 420 bags.

WOOD MEAL

The Burnet Co., Malaren, Gothenburg, 881 bags.

BOSTON IMPORTS

WEEK ENDING JUNE 23, 1928

Waterfalls Paper Mills, Bird City, Gothenburg, 500 bls. wood pulp, 101 tons.
Pagel, Horton & Co., Inc., Bird City, Ornskoldsvik, 3,600 bls. sulphite, 609 tons.
Perkins, Goodwin & Co., Bird City, Umea, 5,600 bls. sulphate, 812 tons.
J. Andersen & Co., Bird City, Gothenburg, 2,750 bls. sulphite, 558 tons.
J. Andersen & Co., Bird City, Sarpsborg, 4,962 bls. sulphite, 827 tons.
The Borregaard Co., Inc., Bird City, Sarpsborg, 156 bls. sulphite, 26 tons.
The Borregaard Co., Inc., Bird City, Bamble, 2,100 bls. sulphate, 350 tons.
Castle & Overton, Inc., Natirar, Germany, 1,056 bls. wood pulp.

PHILADELPHIA IMPORTS.

WEEK ENDING JUNE 23, 1928

J. H. Whitwell & Co., MacKeesport, Havre, 1 cs. wall paper.
Strawbridge & Clothier, MacKeesport, Havre, 1 cs. wall paper.
J. Milton Hagy Waste Works, MacKeesport, Havre, 50 bls. rags.
Castle & Overton, Inc., MacKeesport, Havre, 939 bls. rags.
G. W. Millar & Co., MacKeesport, Havre, 8 bls. rags.
E. Butterworth & Co., Inc., MacKeesport, Havre, 32 bls. rags.
V. Galaup, MacKeesport, Havre, 81 bls. rags.
E. A. Stone, MacKeesport, Havre, 214 bls. rags.
J. M. Jaffe, MacKeesport, Havre, 54 bls. rags.
D. I. Murphy, MacKeesport, Havre, 88 bls. rags.
Katzenstein & Keene, Inc., MacKeesport, Havre, 34 bls. rags.
Katzenstein & Keene, Inc., MacKeesport, Dunkirk, 164 bls. rags.
V. Galaup, MacKeesport, Dunkirk, 127 bls. rags.
Ayres W. C. Jones Co., MacKeesport, Dunkirk, 31 bls. rags.
G. W. Millar & Co., MacKeesport, Dunkirk, 43 bls. rags.
Castle & Overton, Inc., MacKeesport, Dunkirk, 198 bls. rags.
E. Butterworth & Co., Inc., MacKeesport, Dunkirk, 1 ble. rags.
J. Milton Hagy Waste Works, MacKeesport, Dunkirk, 289 bls. rags.
E. J. Keller Co., Inc., MacKeesport, ——, 125 bls. rags.
J. Andersen & Co., Bird City, Gothenburg, 253 bls. sulphite, 50 tons.
Paper Manfg. Co., Bird City, Gothenburg, 46 bls. paper.
S. Birkenstein & Son, Liberty Land, Genoa, 204 coils old rope.
W. Schall & Co., Liberty Land, Marseilles, 90 bls. rags.
Castle & Overton, Inc., Blue Triangle, Oran, 515 bls. rags.
Equitable Trust Co., Blue Triangle, Oran, 168 bls. rags.
Chase National Bank, Blue Triangle, Oran, 55 bls. rags.
E. J. Keller Co., Inc., Blue Triangle, ——, 133 bls. rags.
J. W. Hampton, Jr., & Co., Chicago City, Bristol, 275 tons china clay.
E. Butterworth & Co., Inc., Chicago City, Bristol, 68 bls. rags.
H. J. Young, Chicago City, Bristol, 125 bls. waste paper.
L. H. Abenheimer, Isarco, Naples, 133 bls. rags.
E. J. Keller Co., Inc., Spar, ——, 375 bls. flax waste.
E. J. Keller Co., Inc., Spar, ——, 54 bls. rags.
E. J. Keller Co., Inc., Spar, ——, 78 bls. bagging.
E. J. Keller Co., Inc., Innoko, ——, 39 bls. rags.
E. J. Keller Co., Inc., Innoko, ——, 161 bls. bagging.
Castle & Overton, Inc., Innoko, Holland, 154 bls. rags.
Castle & Overton, Inc., Iserholm, Germany, 1,409 bls. wood pulp.
Castle & Overton, Inc., Iserholm, Germany, 626 bls. rags.
Castle & Overton, Inc., Manchester Shipper, England, 83 bls. rags.
Castle & Overton, Inc., Arkansas, Denmark, 389 bls. rags.
Castle & Overton, Inc., Tomalva, Belgium, 251 bls. rags.
Castle & Overton, Inc., Capulin, England, 76 bls. rags.
Castle & Overton, Inc., Coeur d'Alene, Greece, 477 bls. rags.
Castle & Overton, Inc., London Corp., London, 98 bls. rags.
Castle & Overton, Inc., Hague Maru, Japan, 60 bls. rags.

PORTLAND IMPORTS

WEEK ENDING JUNE 23, 1928

Waterfalls Paper Mills, Bird City, Gothenburg, 5,500 bls. wood pulp, 1,107 tons.
The Borregaard Co., Inc., Bird City, Hurum, 2,400 bls. sulphate, 400 tons.
The Borregaard Co., Inc., Bird City, Bamble, 300 bls. sulphate, 50 tons.

NEW ORLEANS IMPORTS

WEEK ENDING JUNE 23, 1928

Castle & Overton, Inc., Scantic, Italy, 255 bls. rags.

BALTIMORE IMPORTS.

WEEK ENDING JUNE 23, 1928

Congoleum Nairn Co., Liberty Land, Leghorn, 108 bls. rags.
Congoleum Nairn Co., Vincent, Dunkirk, 337 bls. bagging.
Congoleum Nairn Co., Vincent, Dunkirk, 240 bls. rags.
V. Galaup, Vincent, Havre, 94 bls. rags.
V. Galaup, Vincent, Dunkirk, 38 bls. rags.
Congoleum Nairn Co., Vincent, Havre, 60 bls. rags.
Congoleum Nairn Co., Vincent, Havre, 60 bls. bagging.
Baltimore Post, Humberarm, Corner Brook, 2,197 rolls news print.
Washington Star, Humberarm, Corner Brook, 474 rolls news print.
Washington News, Humberarm, Corner Brook, 1,132 rolls news print.
Philadelphia Bulletin, Humberarm, Corner Brook, 3,692 rolls news print.
E. J. Keller Co., Inc., Beemsterdyk, ——, 300 bls. wood pulp.
Castle & Overton, Inc., Iserholm, Germany, 2,149 bls. wood pulp.

NORFOLK IMPORTS.

WEEK ENDING JUNE 23, 1928

Dixie Jute Bagging Corp., Cold Harbor, Manchester, 143 bls. bagging.
E. J. Keller Co., Inc., Beemsterdyk, ——, 50 bls. rags.
Castle & Overton, Inc., Iserholm, Germany, 187 bls. wood pulp.

Paper Firms Unite in 25-Million Deal

Launching of a $25,000,000 project which will bring under unified control and management one of the largest groups of properties in the United States manufacturing kraft bag paper and multi-wall bags was disclosed yesterday in the announcement of the organization by interests identified with F. L. Carlisle & Co., Inc., of a holding company to be known as Taggart Corporation.

The corporation, which has been incorporated in Maryland, will have an authorized capitalization of 100,000 shares of preferred stock, 100,000 shares of Class A stock and 1,000,000 shares of common stock. Financial and operating details are being worked out.

The new corporation will own the entire outstanding common stock and a majority of the preferred of Taggart Brothers Company, Inc.; the entire outstanding common and preferred stock of Taggart Oswego Paper and Bag Corporation; and the entire outstanding common stock of the Champion Paper Corporation. The Champion Company, in turn, owns the entire capital stock of the Carthage Power Corporation.

The properties to be controlled by the Taggart Corporation all located in Northern New York, consist of four paper mills at Oswego, Watertown, Herrings and Carthage, and three bag manufacturing plants at Oswego, Herrings and Watertown.

Officers of the new corporation are: F. L. Carlisle, President; B. B. Taggart, Vice President; R. B. Maltby, Vice President; R. K. Ferguson, Secretary and Treasurer. Directors are: F. L. Carlisle, R. K. Ferguson, H. E. Machold, C. E. Norris, R. B. Maltby, B. B. Taggart and Delano Andrews.

THERMO-COMPRESSORS

boost exhaust steam for paper dryers

They operate with live steam, entrain exhaust steam, and discharge at pressures suitable for above service. They use up exhaust steam, reduce consumption of live steam and eliminate reducing valves.

Hand or automatic control. **Send for Bulletin 4F**

Also valves, spray nozzles, heat exchangers, etc., for the paper industry.

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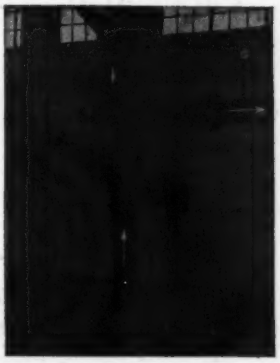

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THE WATERBURY FELT CO.
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Highest Quality—Prompt Service

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Red
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Umbers, Agalite

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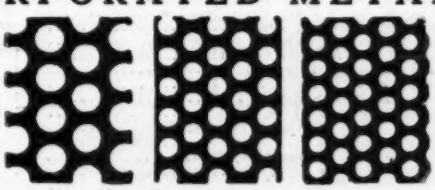

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TYPE "B" IRON EXTRACTOR

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THE ROLAND T. OAKES CO., Holyoke, Mass.
Electrical Specialists. ***Established 1885***

Paper Mill Stocks and Bonds

Quoted by Messrs. McGay & Co., 25 Broad street, New York City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	ASKED
Abitibi Fibre Company 6s, 1947	104	105
Abitibi Power & Paper 6s, 1940	104½	106½
Abitibi Power & Paper 6s, serially to 1934	100	102
A. P. W. Paper 7s, 1945	101½	103½
American Writing Paper 6s, 1947	85	88
Bastrop Pulp & Paper 6½s, 1940	103½	105½
Beaver Board 8s, 1933	102	103
Beaver Products Corp. 7½s, 1942	109	111
Bedford Pulp & Paper 6½s, 1942	98	100
Belgo-Canadian Paper 6s, 1943	103	105
British-Columbia Pulp & Paper 6s, 1950	90	92
Brompton Paper Serial A 6s, 1946	101	103
Brompton Pulp & Paper 6s, 1935	100	...
Brown Paper Mills Serial 6s, 1941	99	101
Brown Company 5½s, 1946	99	101
Bryant Paper 6s, 1942	100	101½
Canadian Paper Board 7s, 1937	97½	99½
Cape Breton Pulp & Paper 6s, 1932	103	...
Celotex Company 6s, 1929	97	99
Celotex Company 6½s, 1939	100	102
Celotex Company of Chicago Debenture 6s, 1936	97	100
Central Paper Company Serial 6½s, 1942	86	89
Central Paper 7s, 1934	85	90
Champion Coated Paper Serial 6½s, 1934	100	...
Champion Coated Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 8s, 1930	100	...
Champion Paper Corp. 6s, 1945	95	98
Chicago Mill & Lumber Serial 5½s, 1936	98	100
Container Corp. of America Debenture 6s, 1936, ex-warrants	103	105
Continental Paper Products 6½s, 1943	92	95
Cornell Wood Products 7½s, 1937	103	...
Crown Willamette 6s, 1951	102	103½
Dells Paper & Pulp Serial 6s, 1938	95	98
Dixon Board Mills Serial 6s, 1942	60	...
Donnaconna Paper 5½s, 1948	96½	98½
Eastern Manufacturing Co. 7s, 1938	98	100
Escanaba Paper Serial 6s, 1939	98	100
Escanaba Paper 6½s, 1935	96	99
Filer Fibre Serial 7s, 1935	90	95
Fort Orange Paper 7s, 1942	104	...
Fort William Paper 6s, 1946	101	104
Fox River Paper 7s, 1931	100	...
Fraser Company 6s, 1950	103	105
Hammermill Paper Serial 6s, 1939	101	...
Hawley Pulp & Lumber 6s, 1946	96	...
Hawthorne Paper Company 6s, 1937	80	...
Hoberg Paper & Fibre 7s, 1937	95	97
Industrial Fibre Corp. Debenture 8s, 1933	100	...
International Paper 6s, 1955	102	104
International Paper 5s, 1947	99	101
Itasca Paper & Prairie River Paper Serial 5½s, 1938	99½	...
Itasca Paper & Prairie River Paper Serial 6s, 1938	99	...
Jessup & Moore First 6s, 1945	88	92
Kalamazoo Vegetable Parchment 6s, 1938	99	101
Lake Superior Pulp & Paper 6s, 1941	105	108
Manitoba Paper 6½s, 1936	102½	104½
Marathon Paper Mills Serial 5½s, 1942	99½	101
Marathon Paper Mills Serial 6s, 1937	100	...
Marinette & Menominee 7½s, 1936	103	105
Mead Pulp & Paper 5% Notes Serially, 1937	95	100
Mead Fibre 7s, 1937	98	101
Menosha Printing & Carton 6½s, 1939	99½	...
Midwest Box Company 6½s, 1940	100	...
Minnesota Ontario Paper Serial 6s, 1945	97½	100
Murray Bay Paper 6½s, 1947	102	105
Munissing Paper Serial 6s, 1936	98	...
Nekoosa Edwards Paper 6s, 1942	96	...
Ontario Pulp & Paper 6s, 1931	108½	110½
Orono Pulp & Paper 6s, 1943	99	...
Orono Pulp & Paper 5s, 1941	96½	...
Oswegatchie Paper Serial 6s, 1932	95	100
Oswego Falls Corp. 6s, 1941	99	102
Oxford Paper 6s, 1947	102½	...
Paepcke Paper Mills 7s, 1930	99	...
Parker-Young Company 6½s, 1944	98	100
Paterson Parchment Paper 6s, 1938	101½	103
Penobscot Chemical Fibre 6s, 1942	102	105
Port Alfred Pulp & Paper 6½s, 1943	105	107
Port Alfred Pulp & Paper 5½s, 1947	98½	100
Price Brothers 6s, 1943	105	...
Provincial Paper 5½s, 1947	98½	...
Provincial Paper 6s, 1940	100	...
Queen City Paper 7s, 1933	98½	...
Richardson & Company 6s, 1938	100	...
River Raisin Paper 6s, 1936	99	101
Riordan Pulp & Paper 6s, 1942	102	104
Rolland Paper 6s, 1937	99	101
St. Anne Paper 6½s, 1946	102	104
St. Croix Paper Serial 5s, 1937	99	...
St. Helen Pulp & Paper 6½s, 1931	99	102
St. Lawrence Paper Mills 6s, 1946	101½	103½
St. Lawrence Paper Mills 6½s, 1936	100½	102½
St. Maurice Valley Corp. 6s, 1945	102	104
St. Maurice Valley Corp. 5½s, 1947	98½	100½
St. Regis Paper of Canada 6s, 1931	100	101½
St. Regis Paper of Canada 6½s, 1934	100	101
Smith (Howard) Paper Mills 6s, 1934	101	...
Smith (Howard) Paper Mills 7s, 1941	104	106
Southern Paper Company 6½s, 1937	100	...
Spanish River Pulp & Paper 6s, 1931	108	110
Stevens-Thompson Paper 6s, 1942	94	96
Taggart Brothers 6s, 1944	95	100
Taft Paper & Color Industries 6s, 1935	88	92
Ticonderoga Pulp & Paper 5s, 1930	94	...
Ticonderoga Pulp & Paper 6s, 1940	100	102
Tomahawk Kraft Paper 6s, 1938	98	...
Tomahawk Pulp Paper 7s, 1932	99	...
Tonawanda Paper 5½s, Series 1941	99	102
U. S. Envelopes 5s, Series 1934	99	...
Union Bag & Paper Power 6s, 1933	98	100
United Wall Paper Factories 6s, 1947	96	99
Warren (S. D.) Company 6s, 1945	103	105
Watab Paper 6½s, 1942	101½	103½
Waterway Paper Products 6s, 1931	100½	101½
Wayagamack Pulp & Paper 6s, 1951	103	105
Westfield River Paper Serial 7s, 1943	89	93
Whitmer-Parsons Pulp & Lumber 8s, 1938	18	...
Whitaker Paper 7s, 1942	108	110

STOCKS	BID	ASKED
American Box Board, Pfd.	9¼	10¼
American Box Board, Com.	9¼	10¼
Am. Tissue Mills, 7% Pfd.	90	93
British Columbia P. & P., Pfd.	65	75
Brompton Pulp & Paper, 8% Pfd.	100	102
Brown Corpn., 7% Pfd.	104	None Off.
Champion Fibre, 7% Pfd	108	110
Diem & Wing, 7% Cum. Pfd.	92	97
Eastern Mfg. Co., 1st Pfd.	61	64
Great Northern Paper, Com.	72	77
Hammermill Paper, 7% Pfd.	108	110
Hinde & Dauch, Com.	125	None Off.
Hinde & Dauch, 6% Pfd.	102	None Off.
Holyoke Card & Paper	150	None Off.
Marathon Paper Mills, Com.	125	...
Midwest Box Co., 8% Pfd.	98	102
Midwest Box Co., 6% Pfd.	95	99
Louis De Jonge Co., 7% Pfd.	94	97
Oxford Papers, Com.	160	180
Oxford Paper Co., Pfd.	109	111
Penobscot Chemical Fibre, Com.	70	80
Richardson Co., Com.	160	180
Rubberoid	90	100
Sabin Robbins Paper Co., 7% Pfd.	105	110
St. Croix Paper	155	170
St. Regis Paper Co., 7% Cum. Pfd.	107½	109½
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper Company	54	60
West Virginia Pulp & Paper, Pfd.	102½	105½
Whittaker Paper, 7% Cum. Pfd.	105	None Off.

Recent Import Decision on Paper

Thirty importations of rotogravure paper are involved in a decision favorable to the Government involving the question of value. The Government was sustained by a single judge of the Customs Court, and the importer asked for a rehearing by the board of three judges. When the case came up for trial, however, the importers, as a result of conferences between their counsel and the Import Committee decided to accept the recommendation of the Committee and the hearing before the board of three judges was in the nature of an abandonment of the earlier claim by the importer. About 1,500 tons of paper paid duty on a higher valuation than was claimed by the importers.

Recent action by appraisers at west coast points includes the following:

Pink poster paper imported at Portland, Ore., as standard news print held not to be standard news print duty free as claimed by importers but to be dutiable as printing on account of its sizing and other characteristics.

Imitation parchment for packers use with printed name of packer, held by Seattle appraiser to be dutiable at 5 cents per pound and 20 per cent as printed paper in chief value of imitation parchment; claimed by importer to be dutiable at 30 per cent as wrapping.

Several recent cases which had been carried to the United States Customs Court have been dropped by the importers.

Two New York importers abandoned cases involving five shipments of envelope lining papers, which were held by the appraiser to have been heavily undervalued. Four shipments were from France, one from Germany.

An importer of French writing paper after consultation with the Import Committee decided to accept without protest New York appraiser's classification of the imported paper as subject to additional duty of 10 per cent for special finish.

C. E. Stevens Leaves Arrowhead Mills

FULTON, N. Y. June 25, 1928.—Charles E. Stevens, general superintendent of the Arrowhead Mills, Inc., has resigned his position to take effect July 1. Mr. Stevens has been with the Arrowhead Company ten years.

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¶ It yields the papermaker a profit and gives his patrons more than their money's worth.

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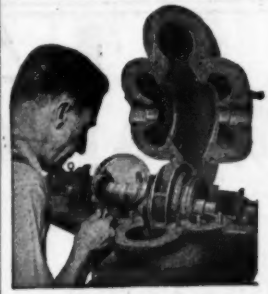

Photograph of a Centrifugal Pump Shaft badly worn by working against flax packing which did not carry sufficient lubricant to prevent friction.

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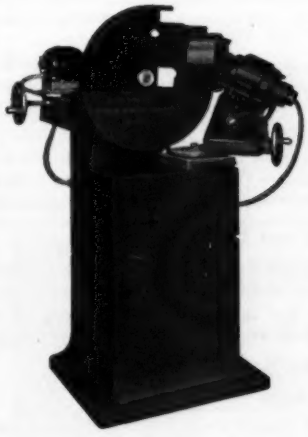

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New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, June 27, 1928.

While trading in the local paper market has quieted down, due mainly to the holiday feeling, the demand for the various grades is considered satisfactory for the time of the year. Prices generally remain steady and are holding up to previously quoted levels, in most instances. Sales forces of the leading paper houses are booking occasional good orders and are optimistic over the coming autumn campaign.

No further developments have transpired in the news print market. Prices are rather weak and manufacturers are making generous concessions on contracts signed for the forthcoming year. Contract withdrawals are proceeding in satisfactory volume. During the past week North American mills operated at 80 per cent capacity. Stocks in hand are sufficient to take care of the prevailing demand.

The undertone of the board market is sound. Box board production is well up to average for the season. Prices remain unchanged. The various grades of fine paper are moderately active. Tissues are running slightly below the output. The recent cut in the price of Southern kraft has been followed by a decline in the quotation for No. 2 Domestic kraft.

Mechanical Pulp

Demand for ground wood pulp is fairly satisfactory for the season although most of the business being transacted at present is along routine lines. There has been some inquiry for future business. Quotations remain unaltered and while there may have been some concessions on large sized orders, shading is infrequent.

Chemical Pulp

The chemical pulp market is exhibiting a strong undertone. Both foreign and domestic producers are reported to be well sold ahead. Bleached sulphite is in a particularly sound position and the better grades are practically sold out for the year. Offerings of chemical pulp are decidedly limited, although contract orders are being filled in a satisfactory manner. Prices are holding to former levels without difficulty.

Old Rope and Bagging

Both domestic and imported old rope are in excellent demand for the time of the year. Most of the business transacted during the past week, however, was for immediate requirements. The various grades of bagging are in fairly good request and quotations remain steady and unchanged, in most instances.

Rags

Domestic roofing rags are arousing more interest than of late, while cotton cuttings are moving in good volume. Prices are generally holding to the levels which have prevailed for some time past. No radical changes have taken place in the foreign rag market although the request for imported roofing rags is said to be improving. Prices are practically unaltered.

Waste Paper

The local paper stock market was rather quiet during the past week. Demand for book stock has fallen off slightly and prices are somewhat weaker. Stitchless flat stock and over-issue magazine are now selling at from 1.80 to 1.90, while solid flat book stock is quoted at from 1.70 to 1.80. Other grades are moderately active with quotations practically unchanged.

Twine

Steadiness prevails in the twine market. While current trading is mostly routine, the industry is considered to be in an excellent position for the time of the year by many competent observers, and considerable expansion is looked for in the Fall. Prices are generally steady and unchanged and there is not much talk of concessions around.

Canadian Paper and Pulp Exports

According to the report issued by the Canadian Pulp and Paper Association, the exports of pulp and paper for the month of April were valued at $12,400,469, which was an increase of $1,260,300 over the total for April, 1927.

Exports of wood pulp in April were valued at $3,013,864 and of paper at $9,386,605 as compared with $2,656,240 and $8,483,929 respectively in April, 1927.

Quantities and values for the various grades of pulp and paper are as follows:

	April, 1928		April, 1927	
	Tons	$	Tons	$
PULP:				
Mechanical	14,076	407,891	10,299	288,822
Sulphite Bleached	16,060	1,250,038	13,876	1,074,467
Sulphite Unbleached	14,939	751,641	11,140	612,381
Sulphate	9,459	560,786	10,862	661,849
Screenings	2,075	43,508	724	18,721
	56,609	3,013,864	46,901	2,656,240
PAPER:				
News Print	140,011	9,068,396	123,449	8,055,336
Wrapping	669	70,699	1,217	137,816
Book (cwts.)	2,336	20,595	5,356	38,340
Writing (cwts.)	108	773	1,376	11,997
All Other	.....	226,142	.....	240,440
		9,386,605		8,483,929

For the first four months of the current year the total value of Canadian exports of wood pulp and paper amounted to $61,674,593 as compared with $54,801,009 in the corresponding months of 1927, an increase for the current year of $6,873,584 or nearly 13 per cent.

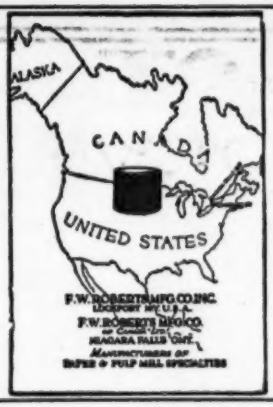
Wood pulp exports for the four months were valued at $14,591,245 and exports of paper at $47,083,348 as compared with $13,968,427 and $40,832,582 respectively in the four months of 1927.

Quantities and values under the various classifications are

	4 months, 1928		4 months, 1927	
	Tons	$	Tons	$
PULP:				
Mechanical	54,385	1,473,313	56,102	1,585,733
Sulphite Bleached	83,712	6,311,996	75,848	5,935,357
Sulphite Unbleached	69,370	3,525,024	59,467	3,273,858
Sulphate	52,688	3,114,191	51,660	3,154,758
Screenings	8,520	166,721	724	18,721
	268,675	14,591,245	243,801	13,968,427
PAPER:				
News Print	697,051	45,030,742	591,479	38,732,675
Wrapping	5,666	620,902	5,925	672,235
Book (cwts.)	19,335	156,517	17,644	146,219
Writing (cwts.)	1,633	14,728	5,222	42,821
All Other	.....	1,260,459	.....	1,238,632
		47,083,348		40,832,582

Pulpwood exports for the four months were smaller than in the corresponding period of 1927, the total amounting to 537,459 cords valued at $4,770,423 as compared with 583,957 cords valued at $5,374,679 exported in the first four months of last year.

BURRS



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Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, June 27, 1928.

BLANC FIXE.—Demand for blanc fixe was rather quiet during the past week and the undertone of the market was weak. There was no further change in prices, however. The pulp is still selling at $40 per ton, in bulk and the powder is quoted at from 3½ cents to 3⅝ cents a pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market was moderately active. Contract shipments of this product are going forward at a normal rate for the season. Prices are holding to schedule, in most instances. Bleaching powder is offered at from $2 to $2.35 per 100 pounds, in large drums, at works.

CASEIN.—Steadiness prevails in the casein market. Offerings are rather limited at present and prices are holding to former levels. Domestic casein is quoted at from 15½ cents to 16½ cents a pound. Imported casein is selling at from 16 cents to 16½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Contract withdrawals of caustic soda are well up to average. The position of the market is strong and prices are steady. Solid caustic soda is selling at from $2.90 to $2.95 per 100 pounds. The flake and the ground are quoted at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Most of the business transacted in the china clay market was along routine lines. Prices are unchanged. Imported china clay is quoted at from $15 to $25 a ton, in bulk, ship side. Domestic paper making clay is selling at from $8 to $9 a ton, at mine, and pulverized at from $10 to $12 a ton.

CHLORINE.—The chlorine market is in a strong position. Supplies are moving into consumption in satisfactory volume. Prices remain unaltered. Chlorine is selling at 3½ cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation ranges from 3¾ cents to 4 cents a pound.

ROSIN.—Conditions in the rosin market are gradually improving. At the naval stores, the grades of gum rosin used in the paper mills are now quoted at from $9.80 to $9.90 per 280 pounds, ex dock, in barrels. Wood rosin is selling at from $8.05 to $9.00 per 280 pounds, in barrels, ex dock.

SALT CAKE.—Business in the salt cake market was fairly active during the past week. Shipments against contract are moving in good volume. Prices are unaltered. Salt cake is offered at from $15 to $17 a ton, in bulk, at works. Chrome salt cake is quoted at from $14 to $15 a ton, in bulk, at works.

SODA ASH.—No radical changes were recorded in the soda ash market. Supplies are moving into consumption at a normal rate for the time of the year. Prices are holding to previously reported levels. Contract quotations on soda ash, in car lots, at works, are as follows: in bags, $1.32½, and in barrels, $1.55.

STARCH.—Although trading in the starch market was only moderately active, quotations are at their highest for the year. Contract shipments are going forward in satisfactory volume. Special paper making starch is selling at $4.22 per 100 pounds, in bags, and at $4.39 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—The position of the sulphate of alumina market is practically unchanged. Supplies are moving into consumption in fair volume. Commercial grades are quoted at from $1.40 to $1.55 per 100 pounds, in bags, at works. The iron free is selling at from $1.90 to $2.05.

SULPHUR.—Steady conditions prevail in the sulphur market. Demand is excellent and producers are increasing their output to meet current requirements. Prices remain unaltered. Sulphur is selling at from $18 to $19 a ton, in bulk, at mine, on contract orders. The spot quotation is $20 per ton.

TALC.—The undertone of the talc market is sound. Demand is well up to average for the season. Prices are holding up to the levels previously quoted. Domestic talc is selling at from $16 to $18 a ton, in bulk, eastern mines. Imported talc is quoted at from $18 to $20 a ton, in bags, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ —
Rolls, transient	3.25	@ 3.50
Sheets	3.65	@ 3.85
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	6.35	@ 7.75
M. F.	6.25	@ 7.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .85
Kraft	.90	@ 1.00
Manila	.75	@ .85
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	4.00	@ 4.25
Southern	3.75	@ 4.00
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

Boards—per ton—		
News	47.50	@50.00
Straw	52.50	@55.00
Chip	45.00	@47.50
Binders' Boards	65.00	@67.50
Sgl. Mla. Ll. Chip	52.50	@55.00
Wood Pulp	80.00	@85.00
Container	67.50	@72.50
85 test Jute Liner	57.50	@60.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	30.00	@31.25
Dry	32.00	@34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@29.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.65	@ 4.25
Easy Bleaching	2.70	@ 2.90
No. 1 strong unbleached	2.60	@ 2.70
Mitscherlich unbleached	2.65	@ 3.25
No. 2 strong unbleached	2.50	@ 2.60
No. 1 Kraft	2.60	@ 2.75
No. 2 Kraft	2.40	@ 2.50
Sulphate—		
Bleached	3.75	@ 3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	2.60	@ 2.75
News Sulphite	2.40	@ 2.65
Mitscherlich	3.00	@ 3.70
Kraft (Domestic)	2.70	@ 3.30
Soda Bleached	3.35	@ 3.50
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.50	@ 1.65

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	11.75	@12.25
New White, No. 2	8.00	@ 8.50
Silesias No. 1	7.25	@ 7.75
New Unbleached	10.50	@11.00
Washables	4.25	@ 4.75
Fancy	5.50	@ 6.00
Blue Overall	6.75	@ 7.25
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Mixed Khaki Cuttings	4.75	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.25	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.50	@ 6.00
Miscellaneous	4.50	@ 5.00
White, No. 2—		
Repacked	3.00	@ 3.50
Miscellaneous	2.50	@ 2.75
St. Soiled, White	2.00	@ 2.15
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.55	@ 1.65
No. 3	1.30	@ 1.40
No. 4	1.25	@ 1.35
No. 5A	.95	@ 1.05

Foreign Rags

New Dark Cuttings	2.50	@ 3.00
New Mixed Cuttings	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.50	@ 8.00
Unbleached Cottons	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50
No. 1 White Linens	7.25	@ 8.00
No. 2 White Linens	5.50	@ 6.25
No. 3 White Linens	4.50	@ 5.00
No. 4 White Linens	3.00	@ 3.50
Old Extra Light Prints	2.75	@ 3.25
Med. Light Prints	1.90	@ 2.10
Dutch Blue Cottons	2.25	@ 2.50
German Blue Linens	2.50	@ 2.75
German Blue Cottons	2.00	@ 2.25
Checks and Blues	1.75	@ 2.00
Lindsay Garments	1.85	@ 1.95
Dark Cottons	1.55	@ 1.65
Old Shopperies	1.50	@ 1.55
New Shopperies	1.45	@ 1.55
French Blues	2.10	@ 2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.65	@ 1.75
Domestic	1.70	@ 1.75
Wool Tares, light	1.60	@ 1.65
Wool Tares, heavy	1.60	@ 1.65
Bright Bagging	1.60	@ 1.65
Small Mixed Rope	1.25	@ 1.40
Manila Rope—		
Foreign	3.00	@ 3.25
Domestic	3.25	@ 4.00
New Burlap Cut	2.75	@ 3.00
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.25	@ 3.50
Hard, White, No. 2	2.75	@ 3.00
Soft, White, No. 1	2.60	@ 2.85
White envelope cuttings	3.25	@ 3.50
Flat Stock—		
Stitchless	1.80	@ 1.90
Overissue Mag	1.80	@ 1.90
Solid Flat Book	1.70	@ 1.80
Crumpled No. 1	1.35	@ 1.45
Solid Book Ledger	2.00	@ 2.10
Ledger Stock	1.80	@ 1.90
Manilas—		
New B. B. Chips	.65	@ .75
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.75	@ .85
Container	.60	@ .70
Bogus Wrapper	.75	@ .85
Old Kraft Machine Compressed bales	1.80	@ 1.90
News—		
No. 1 White News	1.55	@ 1.65
Strictly Overissue	.80	@ .90
Strictly Folded	.60	@ .70
No. 1 Mixed Paper	.45	@ .50
Common Paper	.30	@ .35

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A product developed as a result of 43 years experience in washing American Clays. Today being used in many of the largest paper mills.

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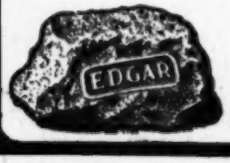


The EDGAR BROS. CO.
50 Church St. New York

The

ST. REGIS PAPER COMPANY

Daily Capacity 525 TONS

Newsprint
Catalog and Directory Papers
Fibre Wrapping Papers
Packers Oiled Manila
Specialties

General Sales Office

15 Broad St., New York

Farmers' Bank Bldg.
Pittsburgh, Pa.

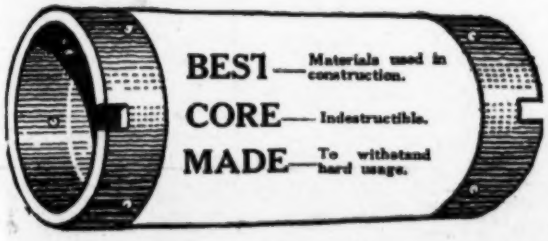
SHIPPING INSURANCE

The Use of

ELIXMAN CORES

protects your rolls and insures their delivery to your customer in perfect condition. They eliminate claims for damages

SHIPPING INSURANCE

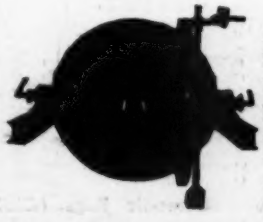


Your two sources of supply are

Canadian Elixman Company
HAMILTON, ONTARIO

Elixman Paper Core Company
CORINTH, N. Y.

SINCE 1887



Biggs Globe and Cylinder Rotary Bleaching Boilers have become known in every part of the world as standard paper-plant equipment. Repeated installations indicate very positively the complete satisfaction of our old customers.

THE BIGGS BOILER WORKS CO.
AKRON, 20, OHIO

Twines

(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.20	@	.22
Tube Rope—			
4-ply and larger	.18	@	.19
Fine Tube Yarn—			
5-ply and larger	.23	@	.27
4-ply	.24	@	.28
3-ply	.26	@	.30
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine			
Balls	.13	@	.15
Box Twine, 2-3 ply	.17	@	.19
Jute Rope	.21	@	.23
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.18	@	.20
No. 2 Basis	.16	@	.18
Sisal Lath Yarn—			
No. 1	.16	@	.18
No. 2	.14	@	.16
Manila Rope	.24	@	.26

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¾	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.06¼	@	.06½
Southern Kraft	.03¾	@	.04
No. 2 Kraft	.04	@	.04¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue—			
24x36 Sheet	.07	@	.07¾
White Tissue—			
20x30 Sheet	.07¼	@	.07½
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip	37.50	@	41.00
Solid News	47.50	@	—
Manila Lined Chip	55.00	@	—
Container Lined—			
(Delivered Central Territory)			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.80	@	2.90
White Env. Cuttings	3.60	@	3.70
No. 1 Soft Shavings	2.50	@	2.60
No. 1 Mixed	1.00	@	1.05
No. 2 Mixed	.90	@	1.00
Ledger & Writings	1.55	@	1.65
Solid Books	1.25	@	1.35
Blanks	1.70	@	1.80
Kraffs	1.90	@	2.00
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.55	@	1.65
Print Manila	.90	@	1.00
Folded News (oversissue)	.65	@	.75
Old Newspapers—			
No. 1	.65	@	.75
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.70	@	.80
Roofing Stocks—			
(F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(F. o. b. Mill)

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.30
Book, M. F.	.06	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.08½	@	.09
Manila Sul., No. 1	.04½	@	.06
Manila, No. 2	.04	@	.04½
No. 2 Kraft	.05¼	@	.05½
No. 1 Kraft	.06	@	.06¼
Common Bogus	.02¾	@	—
Straw Board	60.00	@	65.00
News Board	47.50	@	—
Chip Board	45.00	@	—
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
No. 1, per ton	80.00	@	90.00
No. 2, per ton	75.00	@	80.00
Carload lots	65.00	@	75.00
Tarred Felts—			
Regular	58.00	@	63.00
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.44	@	1.54
Best Tarred, 3-ply	1.93	@	2.08
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.11½	@	.12
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07½	@	.08
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable	.04	@	.04½
Fancy	.05½	@	.06
Cottons—according to grades—			
Blue Overall	.07½	@	.08
New Blue	—	@	.04
New Black Soft	.05½	@	.06
New Light Seconds	.03	@	.03½
Khaki Cuttings	.04½	@	.05
Corduroy	.03	@	.03¾
New Canvas	.08	@	.09½
New Black Mixed	.05	@	.05½

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	2.00
Manila Rope	3.00	@	3.50
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps	1.40	@	1.50
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	—	@	2.50

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.25	@	3.35
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.40	@	2.50
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	2.00	@	2.10
Writing Paper	1.75	@	1.90
No. 1 Books, heavy	1.75	@	1.90
No. 2 Books, light	1.25	@	1.40
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	1.00	@	1.10
Container Manila	.80	@	.90
Old Kraft	2.25	@	2.50
Common Paper	.55	@	.60
No. 1 Mixed Paper	.55	@	.60
Straw Board, Chip	.65	@	.75
Binders Board, Chip	.65	@	.75
Oversissue News	.80	@	.90
Old Newspaper	.55	@	.60

Domestic Rags (Old)

White, No. 1—			
Repacked	4.50	@	5.25
Miscellaneous	3.50	@	4.00
White, No. 2—			
Repacked	.02¼	@	.02¼
Miscellaneous	.02	@	.02¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	1.80	@	2.00
Black Stockings	3.75	@	4.00
Roofing Stock—			
No. 1	1.65	@	1.75

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05½	@	.06½
No. 2 Kraft	.03¾	@	.04¼
Common Bogus	.02¼	@	.04¼
Delivered New England points			
Straw Board, rolls	.009		57.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board			47.50
Chip Board			45.00
Single Manila Pulp lined board	55.00	@	60.00
Single White, patent coated board bender	72.50	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.45	@	2.55
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy	2.00	@	—
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	1.20	@	1.25
White Blank News	1.40	@	1.50
Old Kraft	2.00	@	2.10
Print Manila	.70	@	.80
No. 1 Mixed Paper	.47½	@	.50
Overissue News	.70	@	.80
Old Newspapers	47.50	@	52.50
Box Board, Chip	.65	@	—

Bagging

(Price f. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.60
Domestic	—	@	1.50
Manila Rope—			
Foreign	3.00	@	3.50
Domestic	3.00	@	3.50
Mixed Strings	.85	@	1.00
Scrap Burlaps	1.30	@	1.40
Wool Tares, heavy	—	@	1.50
New Burlap Cutting	—	@	2.00

Domestic Rags (New)

(Price f. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.09	@	.10
Silesias, No. 1	.07	@	—
New Unbleached	.09½	@	.10
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06	@	.06½
New Black, soft	.04	@	.04¼
Khaki Cuttings	.04	@	.04¼
Corduroy	.03	@	.03½
New Canvas	.08	@	.08½

Domestic Rags (Old)

(Price f. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Thirds and Blues—			
Repacked	2.00	@	2.15
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.75	@	1.85
No. 2	1.25	@	1.35
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.60	@	1.65
New No. 1 Shirt Cuttings	9.00	@	10.00
Dutch Blues	2.00	@	2.12½
Lace Curtains	4.50	@	5.00
New Checks & Blues	4.50	@	4.65
Old Fustians	1.90	@	—
No. 2	1.40	@	1.50
No. 3	1.25	@	—
No. 4	.85	@	1.20
No. 5A	.85	@	.90
B	.80	@	.80
C	.70	@	.80

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¾	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (carloads)	3.25	@	—
Sheets (carloads)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	14.50	@	—
No. 2 Coated and Litho	13.50	@	—
No. 3 Coated and Litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Rag	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.60	@	—

Pulp

(F. o. b. Mill)

Ground Wood	30.00	@	31.00
Sulphite easy bleaching	62.00	@	—
Sulphite news grade	62.00	@	—
Sulphite, bleached	75.00	@	—
Sulphate	65.00	@	—

Old Waste Paper

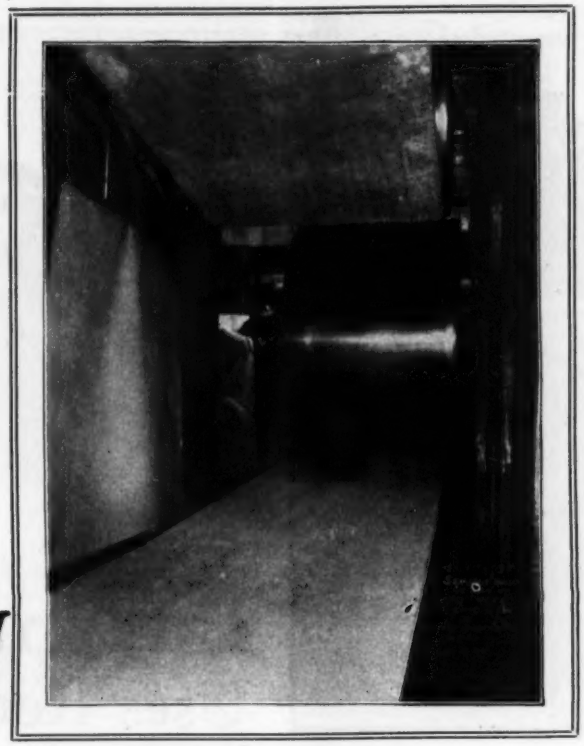
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk, News	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Oversissue	.80	@	—
Strictly Folded	.80	@	—
No. 1 Mixed Paper	.65	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.11½	@	—
Fancy Shirt Cuttings	.05½	@	—



One of the largest known transmission belts in the World

A "SERUBCO"

CUSHION CENTER BELT

Drives 26 Separate Machines

This "SERUBCO" Belt is installed in the Bryant Paper Company, Kalamazoo, Mich. It is 72 inches wide, 12 ply in thickness 142 ft. 8 inches long and weighs about 3,000 pounds.

"SERUBCO" was chosen because experience has proven that it gives continuous uninterrupted service. The patented cushioned center permits it to conform to pulleys, give closer adhesion and 100% coverage, which means maximum horse power delivered.

"SERUBCO" the Standard belt in hundreds of paper and pulp mills, should be used in your plant.

A Trial Will Convince.

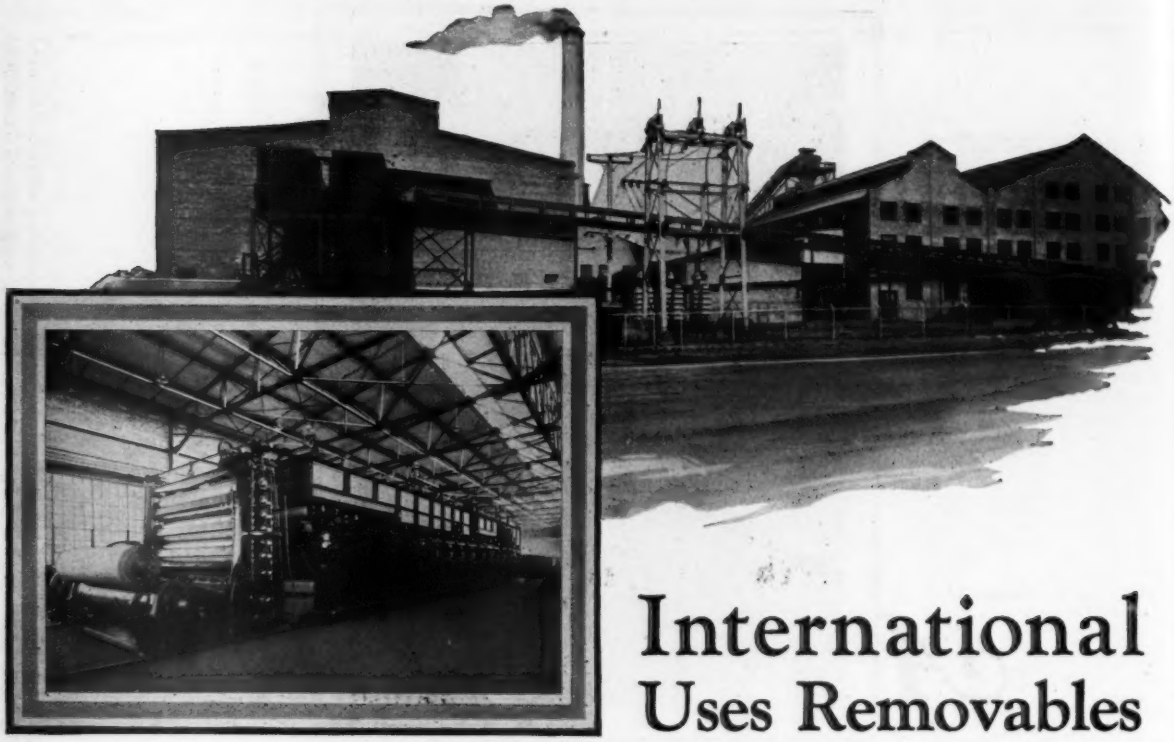
Security Rubber & Belting Co.

2837 South La Salle Street Chicago, Ill., U. S. A.

Distributors

Security Rubber & Belting Co. of New England
131 State Street
Boston, Mass.

Paper Mills Supply Co.
2006 Race Street
Kalamazoo, Mich.



International Uses Removables

TWO Beloit Removable Fourdriniers with Aldrich High-Speed Shake have just been installed in the International Paper Company's new kraft mill at Camden, Ark. The illustration above shows the International's Louisiana mill at Bastrop, La., in which two 162-inch Beloit High-Speed kraft machines are used.

The fourdrinier part of each of these machines incorporates the following three Beloit features essential to modern requirements:

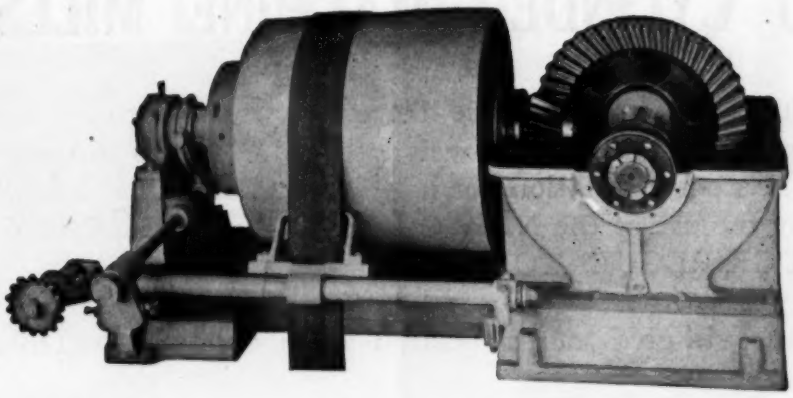
1. Aldrich High-Speed Shake, adjustable (while running) to length and frequency of stroke, an essential for producing better paper at higher speeds.
2. Adjustable to pitch of wire, by power, while running.
3. Removable by power, as a unit, for changing wires easily and quickly, with minimum of human effort, loss of time and production, avoiding danger of damage to expensive wire and running parts, without disturbing the alignment so vital to smooth performance.

Modern methods demand modern equipment

BELOIT IRON WORKS, BELOIT, WIS., U. S. A.

The BELOIT

BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS.



"M & W" SPIRAL BEVEL GEAR
DRIVE STAND

Patent No. 1,567,955. Inclosed Type

BUILT in different sizes to suit power and speed requirements of paper machines . . . Gives accurate regulation of the draws . . . Operates on separate machine units without vibrations or noises . . . No backlash . . . No gear guards required . . . Materially reduces the breaking of the wet paper on wet end of machine, and snapping of paper in the dry part of machine, thereby increasing production . . . Saves power . . . Low upkeep . . . Equipped with a Moore & White High Speed Friction Clutch, with brass and iron discs, which operates quietly, and is easily adjusted from one point . . . Operates from front side of machine to suit mill conditions . . . All bearings are latest type anti-friction (ball or roller bearings).

THE MOORE & WHITE CO.

Paper Mill Machinery

Office and Works, North Philadelphia Station, P. R. R.

PHILADELPHIA, PA.

TO CYLINDER MACHINE MILLS

Especially during a period of trade depression are you called upon to reimburse your customers for over-weight board? If you are experiencing any trouble in stock regulation, let us tell you how this trouble can be eliminated by the use of the NEW COMBINATION FEENEY AUTOMATIC STOCK REGULATOR.

This apparatus will give you the desired weights on liners and filler in your Board.

Write us for particulars.

BAKER MANUFACTURING CORPORATICN

Saratoga Springs, N. Y.

Uncle Jake says—

"Worry will whittle off a man's efficiency faster than a boy with a sharp jackknife can sharpen a pine stick."

One of your worries can be eliminated by using

KVP PAPERS

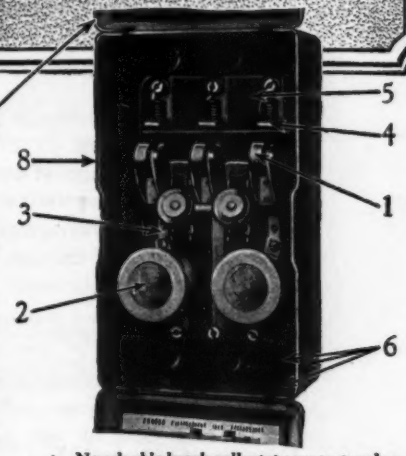
We do the worrying and make sure that these papers are as perfect as it is possible to make them before they leave our mill.

Let us send you samples.

KALAMAZOO VEGETABLE PARCHMENT CO. KALAMAZOO, MICH.

NEW

C-H Manual A.C. MOTOR Starter No. 9115



A NEW manually operated starter for A. C. motors up to 7½ h. p.—a starter so far advanced in design—so much better in performance—that an entirely new standard of manual motor control is established.

This new C-H 9115 Starter affords protection typically Cutler-Hammer in thoroughness. Its switch mechanism incorporates the new C-H double-break roller contacts—hailed as a revolutionary contribution to electrical engineering progress. The thermal overload cut-outs protect the motor from dangerous overloads but do not interrupt production for temporary line surges. And back of these long-looked-for operating features are a score of refinements you will appreciate. Sturdy construction! Genuine Thermoplax panel! Adequate wiring room! Conduit knock-outs where you want them!

All in all, the C-H 9115 is a starter you will enthusiastically approve. Because of its low price and its ready adaptability to many motor sizes you will want to carry a stock in your plant. Write for complete information today.

The CUTLER-HAMMER Mfg. Co.
Pioneer Manufacturers of Electric Control Apparatus
1275 St. Paul Avenue, Milwaukee, Wis.

1. *New double-break, roller type contacts reduce arcing to minimum. Wide faced fingers and rollers of heavy copper—cadmium plated to prevent pitting and to insure long life.*
2. *Thermal overload cutouts giving inverse time limit overload protection. Motor and cutouts are dead before case can be opened.*
3. *All wiring on front of panel—cuts installation and upkeep costs. Dead front case.*
4. *Heavy construction throughout—years of continuous service.*
5. *Thick Thermoplax panel won't crack—quickly removable without disturbing conduits.*
6. *"Knockouts" on 5 sides—quick, easy installation.*
7. *Two part safety cover—lower part only can be opened for quick replacement of fusible links in thermal overload cutouts.*
8. *Attractive, dust-proof case—small allowing installation where most convenient.*

CUTLER HAMMER

The Control Equipment Good Electric Motors Deserve

3 mills follow the

In Mill No. 1 Correct lubrication saved $12,983

The lubrication costs of this mill were high.

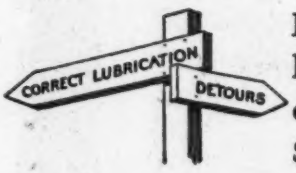
A change was made to Gargoyle lubricants throughout the mill.

The following figures tell the story of cost reduction for the next year:

Total cost of previous lubricants	$18,997.25
Cost of Gargoyle lubricants	$13,701.27
This is a reduction of 28% in the oil bill, or	$ 5,295.98
Savings in wages of five oilers and one oil carrier (estimated by plant management)	7,688.00
Total saving through use of Gargoyle lubricants	$12,983.98

(From the records of a New England Paper Mill)
Vacuum Oil Company File No. 11926

The savings that can be made through correct lubrication in your mill cannot be exactly foretold. One of our lubrication engineers will be glad to go into your problem and report to you what economies you can expect.



In Mill No. 2 Bearing replacement cost reduced $2000

This Michigan Paper Company found it necessary to replace one dryer bearing a week.

The estimated cost of these bearing replacements was $40 each.

A change in lubrication was made.

Since Gargoyle Lubricating Oils have been in service, 2½ years, it has not been necessary to replace a single dryer bearing.

This represents a saving of over $2000 a year and is 17% of the total oil bill for this mill.

Vacuum Oil Company File No. 1257

The lubrication problem of each mill is individual. Consequently, the economies resulting from the use of Gargoyle lubricants vary in different mills.

When we send one of our experienced representatives to work on your lubrication problems he will assist you in securing the full benefit of these economies—increased production, decreased power costs, decreased repair and replacement costs, decreased labor and oiling costs, decreased cost of lubricants.

same guide post

to operating economy

In Mill No. 3 Power Saving 7.7%

This mill was using a competitive oil to lubricate their super-calenders.

Power required was 32.5 k.w.

A change in lubrication was made.

Now with Gargoyle D.T.E. Oil Extra Heavy in service, the power required under the same operating conditions is only 30 k.w. Here is a saving in power cost of 7.7%.

(From the records of an Ohio Paper Mill)
Vacuum Oil Company File No. 121327

LET us help you to find, not only possible power savings. but easily attainable savings in repairs and labor costs.

This may be brought about by a change to the correct grade of oil or the installation of more efficient methods of applying the oil—or both.

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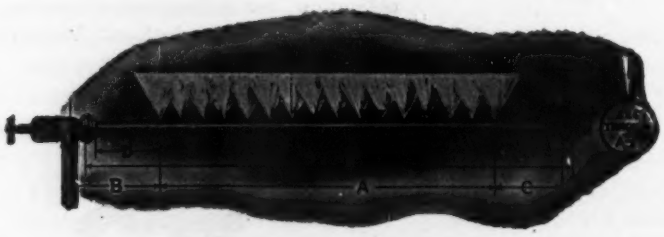

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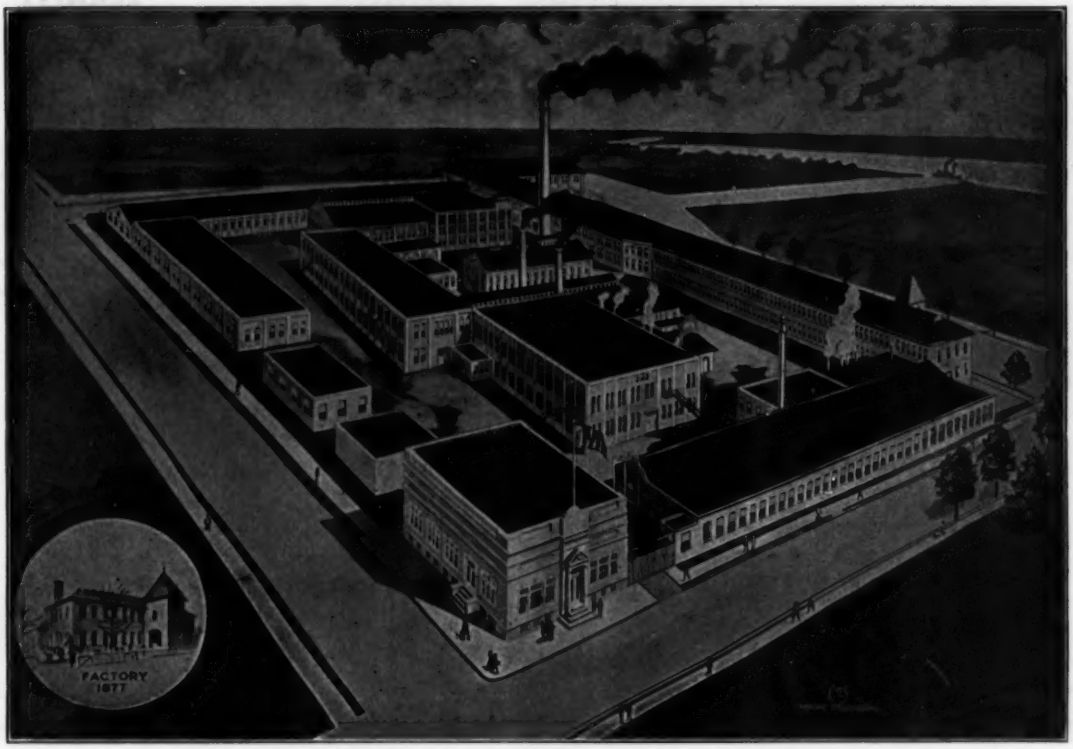

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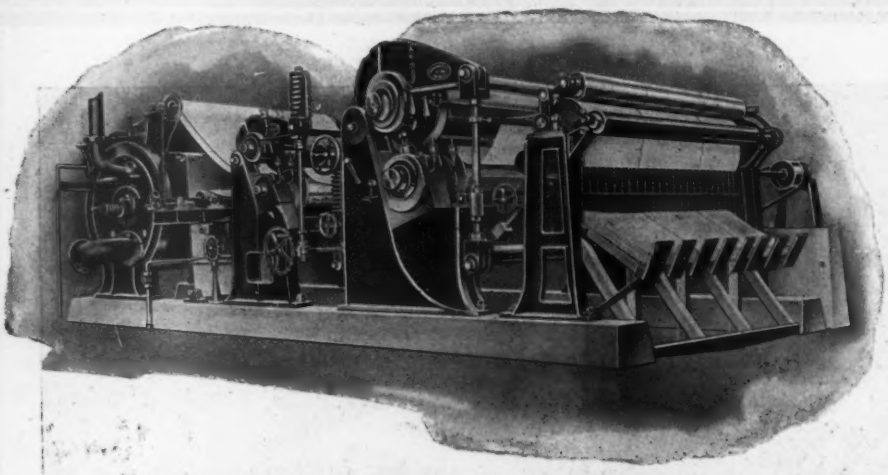

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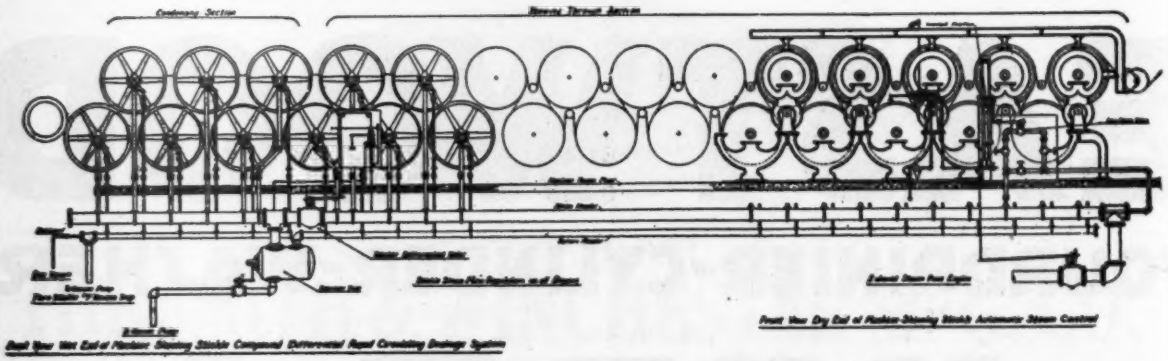

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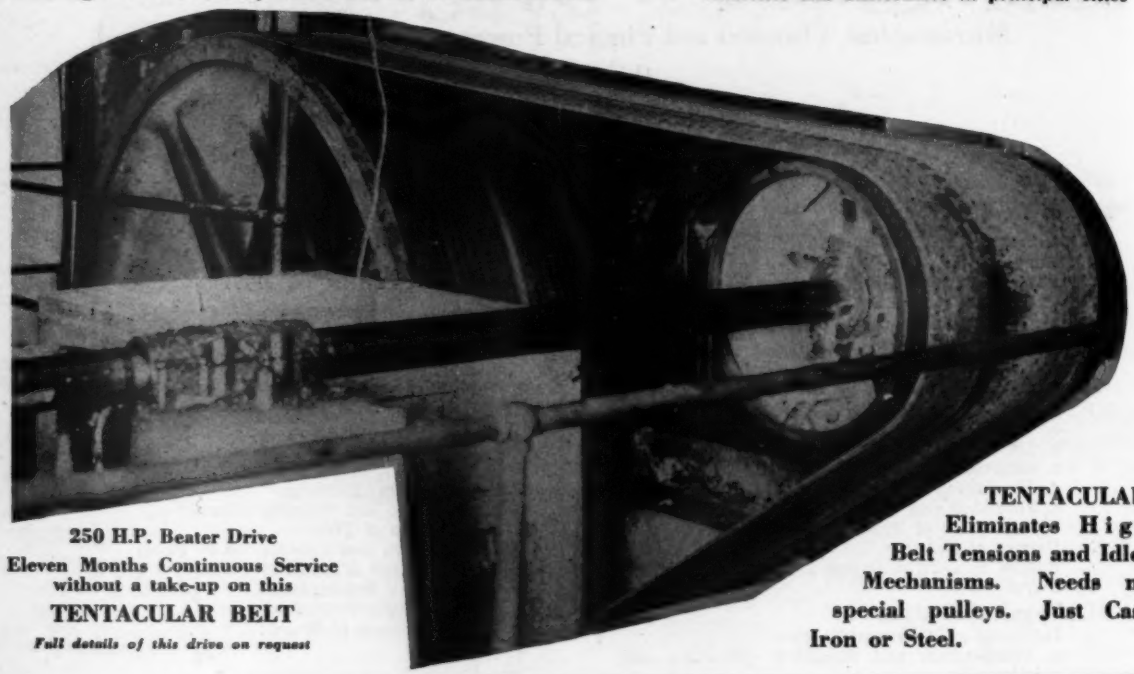

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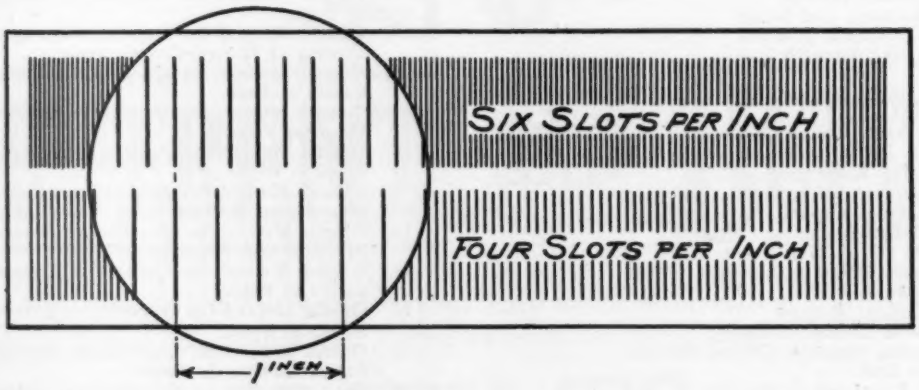

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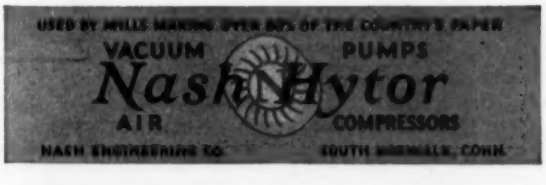
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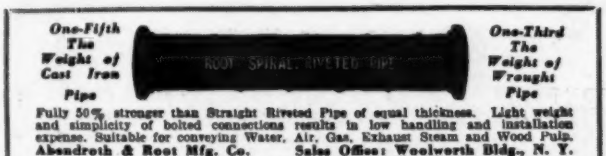

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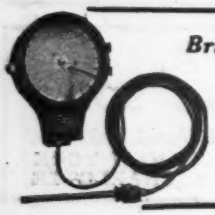
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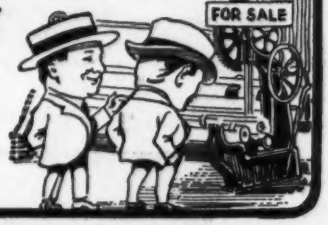

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EXECUTIVE with 10 years experience in handling sales of coarse papers and allied lines will consider a change if future possibilities surpass those of present connections. Will consider mill connection as past experience fully qualifies me for such. Best of references. Address, Box 28-441, care Paper Trade Journal. Jn-28

EXECUTIVE WITH A LONG AND SUCCESSFUL RECORD IN PRODUCTION IS LOOKING FOR A BACK BREAKING JOB. CAN QUALIFY AS PRODUCTION OR PLANT MANAGER. NOT AFRAID OF A TOUGH REORGANIZATION JOB. SALARY COMMENSURATE WITH RESULTS PRODUCED. ADDRESS, BOX 28-445, CARE PAPER TRADE JOURNAL. Jl-5

SUPERINTENDENT—Many years experience making all grades box board, is open for position. Good references. Address, Box 28-118, care Paper Trade Journal. tf.

ASSISTANT SULPHITE SUPERINTENDENT, with eight years experience in sulphite work, desires similar position, or would accept cooking job with chance for advancement. Can produce best quality sulphite. References. Address, Box 28-179, care Paper Trade Journal Jl-12

PAPER MILL INDUSTRIAL ENGINEER open for new engagement. Eighteen years experience. Capable of building or remodeling entire plant. Skilled on plant maintenance, combustion, efficiency, design. Licensed steam engineer and member A.S.M.E. Address, Box 28-393, care Paper Trade Journal. Jn-28

ASSISTANT SUPERINTENDENT — College graduate, chemist, nine years practical experience and research in rag fine writing papermaking and specialties, desires position with opportunity for advancement. Address, Box 27-320, care Paper Trade Journal. tf.

WANTED

WANTED—Good second-hand power Die Cutting Press in sizes 32 x 32, 28 x 38, or size thereabouts. State condition and price. Address, Box 28-416, care Paper Trade Journal. Jn-28

WANTED—2 W. & P. Pulpers, 2 Filter Presses and 1 Rogers Wet Machine. Address, Box 27-285, care Paper Trade Journal. tf.

WANTED—1 Moore & White 4 drum Slitter and Winder, 75" or 80" wide. Large enough to wind roofing felt rolls 60" in diameter. Must be in good mechanical condition. THE LOGAN-LONG COMPANY, Warren County, Franklin, Ohio. tf.

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Paper Mill Machinery

SHARTLE BROS. MACHINE CO., MIDDLETOWN, OHIO

HELP WANTED

DRAFTSMAN by paper machine builder; one with mechanical training preferred. Application must state age, education, experience and salary desired. Address reply to The Smith & Winchester Mfg. Company, South Windham, Conn. Jn-28

ADJUSTER of flat and square bags. One who can operate these machines with printing attachments. State age, experience and salary desired. Address, Box 28-458, care Paper Trade Journal. A-2

WANTED—At earliest possible date—mechanical experimental engineer for process and equipment development work in an established industry in which experience in development work in paper making would be a valuable asset. Will have responsible charge of major developments and opportunity for substantial permanent industrial connection. Good technical training desired. Age under 40 preferred. Ability to direct the activities of others and to secure cooperation equally well from those outside direct line of authority necessary to success. Address, Box 28-459, care Paper Trade Journal. Jn-28

SITUATIONS WANTED

ADVERTISER, AN EXPERT PAPERMAKER AND COLORMAN, desires position as superintendent. Would like to hear from mills making exclusive and non-competitive specialty lines who require the services of a good reliable practical man. Address, Box 28-462, care Paper Trade Journal. Jl-19

MAN thoroughly experienced in coarse papers and specialties, looking for Mill representation in Philadelphia and surrounding territory. Address, Box 28-460, care Paper Trade Journal Jl-19

SUPERINTENDENT, age 47, available short notice. Now employed by one of the largest paper manufacturers in U. S. A. 30 years experience. Water finish fibers, manilas, news, Kraft, converting specialties, sulphite bond, wrapping, bag all kinds, D. F. Bu. Fiber, packers oiled manila, poster, transfer, and others. A-1 references. Address, Box 28-461, care Paper Trade Journal. Jl-19

BOSS BEATER AND COLORMAN wants permanent position. High grade man, crackerjack colorman used to all grades of sulphite and rag papers. Used to full control. Thoroughly experienced and reliable. State offers. Address, Box 28-463, care Paper Trade Journal. Jl-19

WANTED

WINDER WANTED

We are in the market for a Moore & White, four drum Winder to make rolls from 48" to 60" diameter. Trim of machine 93", right hand machine. Standing at dry end looking at winder, drive on the right.

Address, Box 28-443, care Paper Trade Journal. Jn-28

WANTED

Second-hand machinery for a complete twenty or thirty ton paper board mill.

Address, Box 28-455, care Paper Trade Journal. Jl-5

WANTED

WANTED—A 60" power cutter, 48" rotary press and sheeter. THE HI-FLIER MFG. CO., Decatur, Illinois. tf.

WANTED—Used equipment for one complete sulphate recovery unit; equipment to include 1 rotary incinerator approximately 9 x 20, 1—3-disc evaporator, and miscellaneous auxiliary equipment. Advise condition, location, price and terms. Address, Box 28-453, care Paper Trade Journal. Jn-28

WANTED—Poultry Sack machine. Address, Box 28-454, care Paper Trade Journal. Jn-28

MISCELLANEOUS

WANTED—Mill ends and job lots in rolls or flats in any quantity, all grades. Also boards. Joseph Goldstein & Sons, 1302-9 N. Halsted Street, Chicago, Illinois. tf.

CLARK MANUFACTURING COMPANY, Holyoke, Mass. Telephone 1828. Builders of cylinder moulds, couch and felt rolls, dandy rolls. We cover dandies and cylinders tight, for fast running machines 3-5-27

WANTED—Side or odd lot rolls ten to ninety pound basis. The larger the quantity the better we like it. Address, Box 27-481, care Paper Trade Journal. tf.

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FOR SALE—Headquarters—Good Used Paper Machinery. Pulper Mixers, Wet Machines, Fourdriniers, Super-Calenders, Dryers, Cylinder Moulds, Coating Machines, Evaporators, Sulphur Burners, Tube and Rod Mills, Barkers, Beaters, Digesters, Grinders, Slitters, Shredders, Rotary, Flat and Pulp Screens, Save-Alls, etc. CONSOLIDATED PRODUCTS CO., INC., 15-18 PARK ROW, NEW YORK CITY. BARCLAY 0603. Jl-12

FOR SALE—One slightly used Noble & Wood Mammoth Jordan together with 500 HP. motor and coupling. It is also equipped with pulley for belt drive, if preferred. Price and particulars upon request. The Noble & Wood Machine Co., Hoosick Falls, N. Y. tf.

FOR SALE—2—1,000 pound capacity Downingtown Duplex Beaters. For full information apply to the Agasote Millboard Company, Trenton, N. J. Jl-12

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One (1) 500 K. W. Moore bleeder type, condensing turbine, direct connected to Allis-Chalmers, 3 phase, 480 volt, 60 cycle, 3600 R. P. M. generator. Built for 200 lbs. steam pressure, complete with surface condenser, pumps, piping, etc.

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Middletown, Ohio. tf.

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SUPERINTENDENT—Has specialized in the manufacture of light weight Fourdrinier papers, news, Kraft, bond and waxing. Positively can increase production of machines operating under a speed of 800 ft. per minute. Address, Box 28-448, care Paper Trade Journal. Jl-12

ARE YOU IN NEED of a high-class superintendent for your boxboard mill? Maintenance reconstruction, organization and production featured. Have been superintendent of a large and successful mill for a number of years. Will be available after July 15. Satisfaction guaranteed to new connections. Address, Box 28-447, care Paper Trade Journal. Jn-28

WANTED—By practical superintendent—to get in touch with anyone desiring manufacture paper from chestnut wood; also practical on other grades, Kraft, wrapping, chip, waxing; any kind of machine; can get results. Address, Box 28-446, care Paper Trade Journal. Jl-5

FOR SALE

FOR SALE—Two No. 2 Lannoye Pulpers, Serial No. 155 and 223. These pulpers both arranged for motor drive through spur gears. Apply to Warren Manufacturing Company, Milford, N. J. Jl-12

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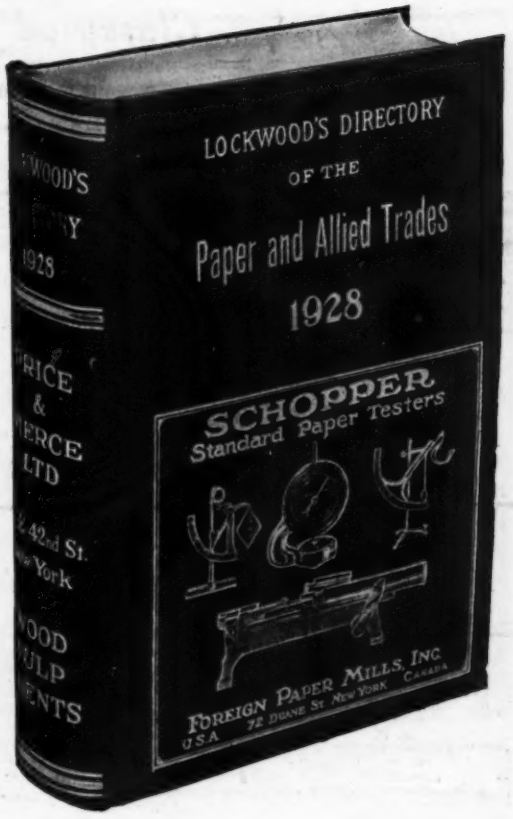

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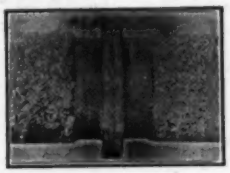

Note: Flange Fits Flush. No Metal on Inside.

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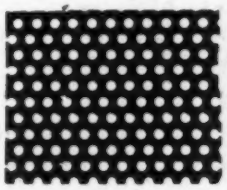

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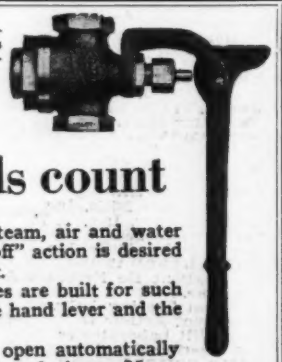
Fig. 720, screwed Jenkins Bronze Rapid Action Valve, finds many applications in industry.



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There are many places in steam, air and water lines where quick "on-and-off" action is desired —where split-seconds count.
Jenkins Rapid Action Valves are built for such service. A short pull of the hand lever and the valve is wide open.
Then, too, this valve stays open automatically without set screws or locking devices. Moreover, water hammer is avoided by regulation of the closing of the disc on the seat.
Equipped with Jenkins renewable disc, marked with the Jenkins Diamond, these valves can be relied on to give typical, long-term Jenkins service. Folder 70-A is the one to ask for.

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JENKINS BROS., Limited
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Always marked with the "Diamond"
Jenkins Valves
SINCE 1864

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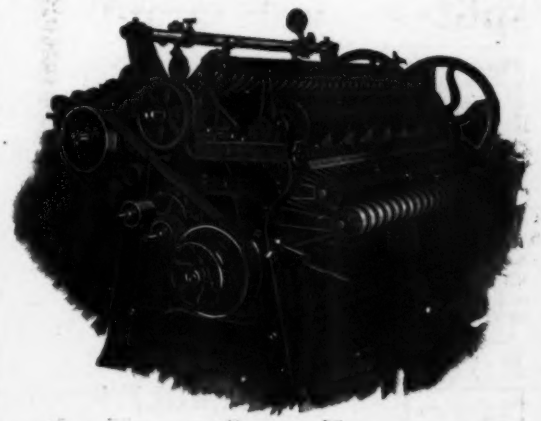

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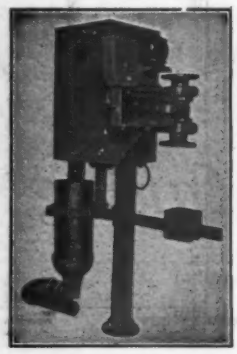

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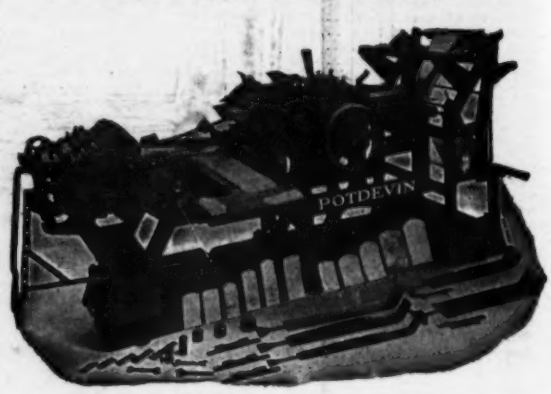

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